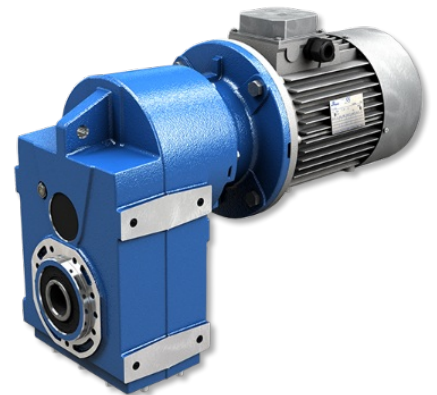


TECHNICAL CATALOGUE



SHAFT MOUNTED GEARED MOTORS

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6. SALES CONDITIONS

6.1 SALES CONDITIONS 111

Motovario® corporate philosophy aims to promote the company's brand and products at an international level with determination and transparency, while constantly striving to offer innovative solutions for satisfying and anticipating the demand of the market. Motovario® provides technologically advanced solutions in the transmission components field for industrial and civil applications worldwide.

The company

At Formigine, the heart of Modena's industrial district, Motovario® boasts a production plant spanning 50,000 m² that employs 500 people.

1965 Foundation of Motovario

1998 Acquisition of Spaggiari Trasmissioni an important brand in the mechanical technology sector.

2006 Motovario acquisition by a private investment fund managed by Synergo SGR, in order to guarantee its development and support its expansion throughout the world.

2014 Acquisition of Pujol.

2015 Acquisition by TECO.

At the core of Motovario® lies an evolved production process based on technological solutions that convert power into movement. Motovario® is at the heart of the production processes that drive industries worldwide. Quality and reliability are the company's fundamental assets. Motovario® is present throughout the world with branches in France, Spain, Germany, England, China, the United States and India. The sales network and customer service guarantee immediate and high-quality support to all customers. In addition, the company boasts a worldwide network of MAC

(Motovario Assembly Centre). Qualified assembly centres are present, in Italy, Australia, Benelux, Bulgaria, China, Finland, France, India, Ireland, Israel, Malaysia, Poland, Portugal, South Korea, Spain, Sweden, Turkey, United Kingdom, Ukraine and USA. The company is able to offer a wide range of products: speed variators, right-angle, helical-bevel, shaft-mounted, worm gear reducers and gearmotors, electric motors, inverter and inverter drives. Maximum quality and precision are ensured by the cutting-edge technologies implemented in the production process. 170 numerical control machines, served by LGV lines for storage in automatic warehouses, ensure a high standard of efficiency for the Motovario® production department.

The highly automated assembly lines are supported by a specific computerised system. The process statistical control system manages the production process to avoid rejects, by enabling the operator to monitor all the processing phases. The annealing, tempering, hardening and carburizing treatments are carried out inside the plant. The plant operates on a 24-hour basis, including holidays. Reliability, resilience and versatility are the distinctive features of Motovario® products, the most qualified solution to any power transmission requirement.

Main fields OF APPLICATIONS

- Mechanical-electromechanical industry (car washing, pumps, barriers & automatic doors, circuit breakers)
- Ceramic industry (ovens, press feeding systems)
- Food, farming, oenology industry
- Wood, marble, glass industry
- Packaging & bottling industry
- Textile, shoes, leather industry
- Transport, logistic industry
- Construction industry
- Milling, animal husbandry, flower industry
- Machine tools & steel industry
- Mining, quarry, cement industry
- Energy industry (solar, nuclear, biomass, wind)
- Amusement industry (theatres, leisure parks, kiddy rides)
- Chemical & pharmaceuticals industry
- Paper & printing industry
- Plastic & rubber industry
- Telecommunications industry (satellite orientation systems, military radar)
- Engineering and consultant companies

Certifications

Our products can be manufactured to conform with the ATEX Directive 2014/34/UE. In addition, the safety and quality of our motors, geared motors and motovariators is guaranteed by the EAC (EurAsian Conformity) certification, an essential requirement for products exported to the Russian Federation. Our motors are UL certified, which guarantees their safety and quality requirements for the North American market.

Quality CONCEPT

Motovario® has obtained the quality certification renewal of its production system in conformity to the UNI EN ISO 9001:2008 standard. This internationally recognised certification acknowledges the company's commitment and drive geared towards constantly improving products, projects and services offered. Moreover, the company has obtained the OHSAS 18001:1999 (Occupational Health and Safety Assessment Series) certification, which defines the requirements of the workplace safety and health management system.

Research & DEVELOPMENT

Technological innovation: a crucial factor for competing in the market. In the company's 50-year history, research and change have been the pivotal factors in guaranteeing competitiveness at a global level, thanks to increasingly advanced products in terms of performance and reliability. Each year the company invests an increasing amount of its turnover in research and development, geared towards promoting the constant study and analysis of products, control processes and performance certification. In order to ensure that customers receive products that comply with the requested performance levels, the company carries out simulations on all new products, including NVH (Noise, Vibration, Harshness) tests effected in the advanced semi-anechoic chamber.

Customer CARE

Innovative instruments and software applications supporting the technical and logistic requirements of our partners worldwide guarantee a timely and customised service. The experience acquired by Motovario® has led to the creation of the new online portal MyMotovario 4.0, which allows for selecting products and exporting their 3D file. As a result, designers and engineering departments can download the three-dimensional model of the requested product and implement it directly in their own layout. In order to maximise customer service and quality, Motovario® offers all its customers the following online services: Order Tracking, which allows for monitoring the progress of an order in real time, and the Stock Availability service, through which users may check the availability (stock) of our products, both in the Italian plant and in the various branches.

Motovario chooses technological evolution.

Motovario® has chosen technological evolution and actively collaborates with the Faculty of Engineering of the University of Modena and Reggio Emilia and of the University of Bologna.

Reliability, sturdiness, versatility

These are the distinctive traits of Motovario products. A broad range of transmission products that provide a competent, innovative solution to each and every power application need. Cutting-edge tools, unrelenting research efforts and ongoing commitment to upgrading manufacturing equipment to the latest state-of-the-art enable us to offer high quality and performance standards to cater to industry requirements and the broadest variety of applications. Motovario ranks among the leading, well-reputed companies in Italy engaged in the design, manufacture and sales of transmission products for industrial and civil applications. The entire manufacturing process takes place in Formigine and Ubersetto plants, in Modena area, with an overall surface area of over 50.000 sq m. and a workforce of about 500 people. 170 numerically controlled machines and cutting-edge handling, storage and assembly automated systems ensure that all products meet high quality standards. The network includes more than 40 Motovario-certified assembly centres, with the capability to supply products in a broad range of versions, including customised versions, high service capacity and fast response. As a result, our product offering can cater to the needs of all plant engineering sectors, in all industries and for different applications, and includes: speed variators, helical, bevel-helical, parallel helical, worm gear reducers and gearmotors, electric motors and motor-inverters. All of the products we manufacture share such common features as reliability, sturdiness and versatility, topped with a high innovation content. At the heart of a company's technological innovation is the ability to develop integrated tools for computer-aided calculation simulation and management of different processes as part of product development. When simulating operating, setup and process conditions, it is also necessary to analyse and optimize the overall functional design of a product using a synergistic approach. This is achieved by implementing an exhaustive experimental plan, without using interpolation or approximation, as they frequently allow criticalities or any oversizing which is not conducive to maximising quality/cost ratio to go unnoticed.

High-efficiency method for calculation according to standards

A set of specific functions have been developed to this end. A few significant examples include functions to:

- Optimise individual reduction ratios and the combinations of the different reduction stages based on parametrisable target normal series;
- Calculate torque values and maximum permissible external forces for gear reducer units, using iterative numeric algorithms to confirm target life/safety values of components;
- Create databases for loading a FEM structural analysis model by automatically writing all reaction components of bearings under all load conditions to a specific file, with automatic selection of critical cases that need to be verified.

Another goal of the method is to create synergy between calculation according to standards and FEM structural calculation and the implementation of FEM model loading procedures, so as to simplify input data, meshing and constraint criteria

Competitiveness and operational benefits of the new method

This method offers many practical advantages over traditional calculation procedures within the company, namely:

- Iterative optimisation of project since setup stage;
- Accurate assessment of the various service factors and reliability levels for the entire gear reducer unit and for all operating conditions as per catalogue rating or customer specific requirements;
- Faster support to customers in analysing tailored product configurations;
- Integrated corporate databases that can be updated in real-time.

Range extension and ongoing evolution

The steady, significant growth of Motovario Group is achieved thanks to an ongoing search for new calculation and design tools, as well as to customer service. The new tools identified have led to innovation, improved product reliability as well as positive developments in market management. The following software products are used for design, calculation and management:

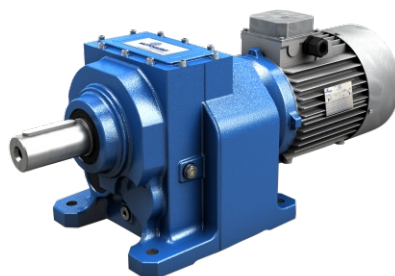
- Solidworks;
- KisoSoft;
- Kissys;
- Ansys;
- FEM modelling analysis software;
- Circuit design and simulation software;
- Specific spreadsheets;
- SAP.

In MyMotovario 4.0 portal, PRODUCT SELECTION includes a section named APPLICATIONS where customers can enter application data and find out which gear reducer suits them best in a matter of minutes.

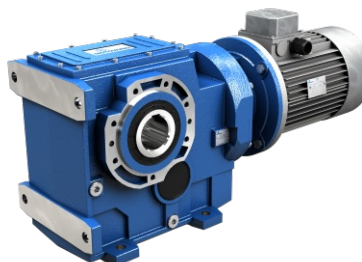
MOTOVARIO Products

HELICAL GEAR REDUCERS

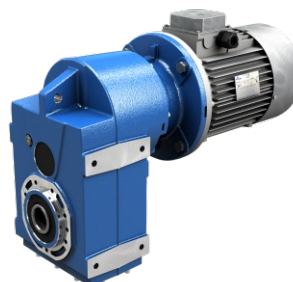
Cast iron or aluminum casing
 Output shaft up to 90 mm
 Mn₂ up to 70806 in-lb
 Reduction stages 1, 2, 3
 Ratios up to 282
 Atex units

**HELICAL BEVEL GEAR REDUCERS**

Cast iron or aluminum casing
 Output shaft up to 110 mm
 Mn₂ up to 115059 in-lb
 Reduction stages 2, 3
 Ratios up to 443
 Atex units

**SHAFT MOUNTED GEAR REDUCERS**

Cast iron
 Output shaft up to 90 mm
 Mn₂ up to 84402 in-lb
 Reduction stages 2, 3
 Ratios up to 395
 Atex units

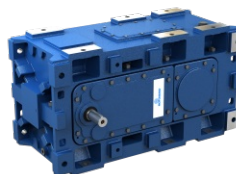
**WORM GEAR REDUCERS**

Cast iron or aluminum casing
 Output shaft up to 50 mm
 Mn₂ up to 23631 in-lb
 Ratios up to 1083
 Atex units



**PARALLEL HELICAL AND
BEVEL HELICAL GEAR REDUCERS
FOR MIDDLE HEAVY INDUSTRY**

Cast iron casing
Output shaft up to 180 mm
Mn₂ up to 973582 in-lb
Reduction stages 1, 2, 3, 4
Ratios up to 636
Atex units

**MOTOVARIATORS AND
MOTOVARIATOR-GEAR REDUCERS**

Cast iron or aluminum casing
Ratios infinite
Mn₂ up to 44254 in-lb
Atex units

**ELECTRIC MOTORS**

Power ratings up to 121 HP
Poles 2, 4, 6
Three-phase and single-phase, built-in
brake, dual polarity
Protection class up to IP66

**DRIVES****DRIVON - motoinverter**

Three phase and single phase power
supply
High dynamics sensorless vectorial
control
Power ratings up to 7.5 HP
Standard integrated STO
Integrated field bus
Optional field bus



1.3 SYMBOLS AND FORMULAS

1.3.1 Symbols

Physical dimension	Symbol	Symbol units of measure	Input	Output
Power	P	[HP]	P ₁	P ₂
Requested power	Pr	[HP]	Pr ₁	Pr ₂
Nominal power	Pn	[HP]	Pn ₁	Pn ₂
Torque	M	[in-lb]	M ₁	M ₂
Nominal torque	Mn	[in-lb]		Mn ₂
Requested torque	Mr	[in-lb]	Mr ₁	Mr ₂
Speed	n	[rpm]	n ₁	n ₂
Load	F	[lb]		
Radial load	Fr	[lb]	Fr ₁	Fr ₂
Radial axial	Fa	[lb]	Fa ₁	Fa ₂
Reduction ratio	i			
Dynamic efficiency	η _d			
Speed	ips	[inch/second]		
Service factor	f.s.			
Static	s			
Dynamic	d			
Calculated	c			
Maximum	max			
Minimum	min			
Moment of inertia	J	[lb*in ²]	J ₁	
Ambient temperature	T _{amb}	[°F]		
Dimensions		[inch]		

1.3 SYMBOLS AND FORMULAS

1.3.2 Formulas

REDUCER		
Starting or stopping time	$t = v / a$	[s]
Velocity in rotary motion	$v = \pi * d * n / 60$ $v = \omega * r$	[ft/s]
Speed velocity Angular velocity	$n = 60 * v / (\pi * d)$ $\omega = v / r$	[rpm] [rad/s]
Acceleration or deceleration according to a starting / stopping time	$a = v / t$	[ft/s ²]
Angular acceleration	$\alpha = n / (9,55 * t)$ $\alpha = \omega / t$	[rad/s ²]
Starting or stopping distance (according to acceleration / deceleration or angular velocity)	$s = a * t^2 / 2$ $s = v * t / 2$	[ft]
Horizontal translation force	$F = \mu * m * g$	[lbf]
Vertical translation force (lifting)	$F = m * g$	
Inclined plane translation force	$F = m * g (\mu * \cos\beta + \sin\beta)$	
m= mass [kg]; g= gravity acceleration [m/s ²]; μ= friction coefficient; β= angle of inclination		
Moment of inertia	$J = m * v^2 / \omega^2$	[lb ft ²]
Torque	$M = F * d / 2$ $M = J * \omega / t$	[in-lb]

MOTOR and GEARMOTOR		
Starting time	$t_a = (J_{ext} + J_m) * n_n / 9,55 + (M_{peak} - M_r)$	[s]
Braking time	$t_s = (J_{ext} + J_m) * n_n / 9,55 + (M_{peak} + M_r)$	[s]
Motor rotation angle during starting	$\varphi = n_n * t_a / 19,1$	[rad]
Motor rotation angle during braking	$\varphi = n_n * t_s / 19,1$	[rad]
Power available at the shaft of single phase motor	$P = V * I * \eta * \cos\omega$	[W]
Power available at the shaft of three phase motor	$P = 1,73 * V * I * \eta * \cos\omega$	[W]

RUNNING at 60Hz		
Speed velocity at 60Hz	$n_{60Hz} = 1,2 * n_{50Hz}$	[rpm]
Power at 60Hz	$P_{1\ 60Hz} = P_{1\ 50Hz} * V_{60Hz} / V_{50Hz}$	[kW]
If input voltage at 60 Hz (V_{60Hz}) corresponds to winding voltage at 50 Hz (V_{50Hz}), power doesn't change $P_{1\ 60Hz} = P_{1\ 50Hz}$		
If input voltage at 60 Hz (V_{60Hz}) is 20% higher than winding voltage at 50 Hz (V_{50Hz}), power increases by 20% $P_{1\ 60Hz} = 1,2 P_{1\ 50Hz}$		
Torque at 60Hz	$M_{60Hz} = M_{50Hz} * P_{1\ 60Hz} / (1,2 * P_{1\ 50Hz})$	[in-lb]
Service factor at 60Hz	$f.s_{60Hz} = f.s_{50Hz} * 1,175 * P_{1\ 50Hz} / P_{1\ 60Hz}$	-

1.3 SYMBOLS AND FORMULAS

UNIT CONVERSION TABLE				
Description	Imperial units	International System of Units (SI)	Technical System (metric)	
Lenght, Distance	1 inch 1 foot	[in] = 0.0254 [ft] = 0.3048	meter	[m]
Mass	1 pound 1 ounce	[lb] = 0.4536 [oz] = 0.0283	kilogram	[kg]
Volume	US liquid gallon	[gal] = 3.7854	liter	[l]
Temperature	Fahrenheit degree	[°F] = 1.8 * °C + 32	Celsius degree	[°C]
Force	1 pound-force	[lb _(f)] = 4.4482	newton	[N]
		[lb _(f)] = 0.4536	kilogram force	[kg _(f)]
Power	1 horse power	[hp] = 0.7457	kilowatt	[kW]
Torque, Work	1 pound-force inch	[lb _(f) in] = 0.1130 [lb _(f) in] = 0.0115	newton meter, joule kilogram-force meter	[N m], [J] [kg _(f) m]
	1 pound-force foot	[lb _(f) ft] = 1.3560 [lb _(f) ft] = 0.1383		
Pressure	1 pound-force per square inch (psi)	[lb _(f) /in ²] = 0.0689	bar	[bar]
Moment of inertia	1 WK ²	[lb _(f) ft ²] = 0.0421	kilogram square-meter	[kg m ²]

For correctly selecting a gear reducer or geared motor, several essential pieces of data are required:

1. The rotational input speed to the gear reducer (**n₁**) and the rotational output speed (**n₂**). Through these two values it is possible to calculate the reduction ratio (**i**) of the gear reducer using the following formula: $i = n_1/n_2$
2. The torque required by the application (**Mr₂**).

The geared motor or gear reducer can be selected once this data is known.

This guide helps you to select the right product in just a few steps:

Geared motor selection

1. Determine the application's actual service factor (**s.f.**). This parameter depends on the type of load of the powered machine, the number of starts per hour and the hours of operation (refer to the "Service factor" paragraph).
2. Calculate the input power **Pr₁** using the required torque value **Mr₂**, the speed **n₂** and dynamic efficiency value. $Pr_1 = (Mr_2 * n_2) / (\mu_d * 63.025)$. The dynamic efficiency value depends on the type of gear reducer and on the number of gear reduction stages. (To calculate the efficiency value see its page).
3. Consult the geared motor performance tables and identify a normalised power value **Pn₁** exceeding the required power **Pr₁**, such that: $Pn_1 \geq Pr_1$
4. Once the suitable nominal power has been identified, select the geared motor capable of generating the rotational speed closest to the desired **n₂** value and with service factor s.f. greater or equal to that required by the application.

In the geared motor selection tables the combinations include 2-pole, 4-pole and 6-pole motors powered at 50Hz.

Gear reducer selection

1. Determine the application's service factor (**s.f.**) (consult to the "Service factor" paragraph on its page).
2. Calculate the reduction ratio **i** from the requested output speed **n₂** and from the input speed **n₁**. $i = n_1/n_2$
3. Calculate the torque **Mc₂** for selecting the gear reducer through the torque required by the application **Mr₂** and the service factor s.f.: $Mc_2 = Mr_2 * (f.s.)$
4. Consult the Gear Reducer Performance tables looking for the reducer that, with the reduction ratio closer to the calculated one, has a nominal torque **Mn₂** so that: $Mn_2 \geq Mc_2$

Checks

Once the gear reducer or geared motor has been selected, the following checks should be performed:

1. Thermal power

The gear reducer's thermal power must be equal to or greater than the installed mechanical power, or the power required by the application according to the indications contained in the section (refer to the "Thermal power" paragraph).

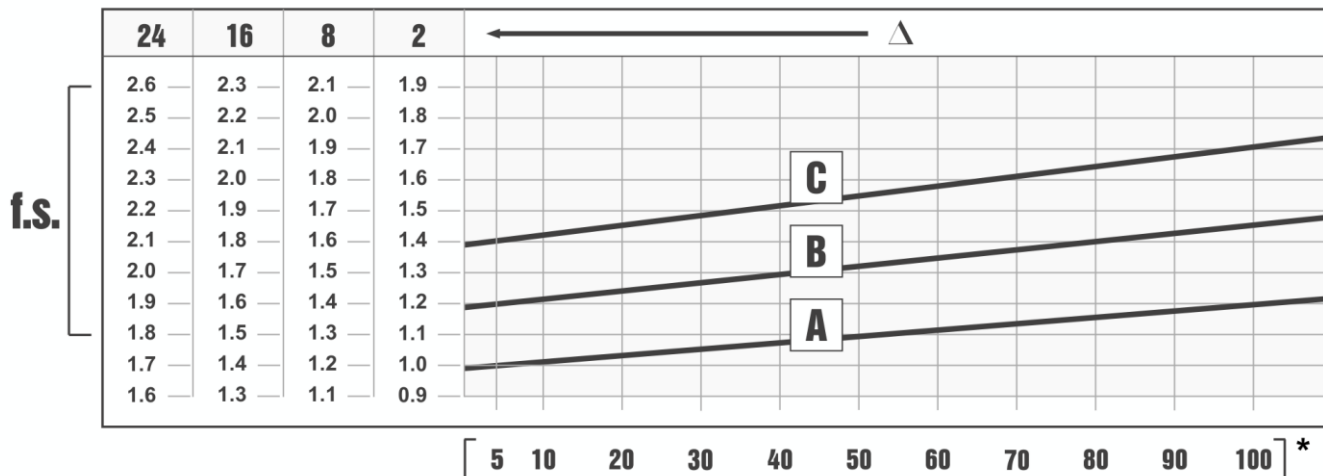
2. Maximum torque

Generally, the maximum torque (peak instantaneous load) that can be applied to the gear reducer must not exceed 200% of the nominal torque **Mn₂** (ATEX - M₂max).

C. Radial loads

1. Verify that the radial loads acting on the input and/or output shafts are within with the values indicated in the catalogue. If they exceed these values, increase the size of the gear reducer or modify the external load capacity. During the checking phase, it is important to remember that the values indicated in the catalogue refer to loads acting on the mid-point of the shaft protrusion, therefore, if the load is applied to a different position, appropriate formulas must be used to calculate the admissible load in the desired position (refer to the "Radial loads" paragraph).
2. If accessory output shafts are present, make sure that the applied load is compatible with shaft size. If help is needed: contact MOTOVARIO TECHNICAL SERVICE.

D. If an electric motor is going to be fitted to the selected gear reducer, check for its applicability by referring to the configuration table (see paragraph "Motor flange availability"). From IEC 180 motors, verify if necessary to support the motor with feet. In case of need please contact MOTOVARIO TECHNICAL SERVICE.



The service factor (f.s.) depends on the operating conditions the gear reducer is subjected to. The parameters that need to be taken into consideration to select the most adequate service factor correctly comprise:

- type of load of the operated machine : A - B - C
- length of daily operating time: hours/day (Δ)
- start-up frequency: starts/hour (*)

LOAD:

- **A** - uniform = $f_a \leq 0,3$
- **B** - moderate shocks = $f_a \leq 3$
- **C** - heavy shocks = $f_a \leq 10$

$f_a = J_e/J_m$

- J_e [lb-in²] moment of reduced external inertia at the drive-shaft
- J_m [lb-in²] moment of inertia of motor

If $f_a > 10$ call MOTOVARIO TECHNICAL SERVICE.

In the case of a variable speed reducer, once determined the service factor of the application it is necessary to compare this value with the safety factor of the S reducer reported in the selection tables, verifying $S \geq f.s.$ condition. The maximum number of admissible starts depends on the type of application. Approximately, the figure must not exceed 5-10 for minute. Contact MOTOVARIO TECHNICAL SERVICE if you have any special requirements.

- Screw feeders for light materials, fans, assembly lines, conveyor belts for light materials, small mixers, lifts, cleaning machines, fillers, control machines.
- Winding devices, woodworking machine feeders, goods lifts, balancers, threading machines, medium mixers, conveyor belts for heavy materials, winches, sliding doors, fertilizer scrapers, packing machines, concrete mixers, crane mechanisms, milling cutters, folding machines, gear pumps.
- Mixers for heavy materials, shears, presses, centrifuges, rotating supports, winches and lifts for heavy materials, grinding lathes, stone mills, bucket elevators, drilling machines, hammer mills, cam presses, folding machines, turntables, tumbling barrels, vibrators, shredders.

1.6.1 Installation

To install the gear reducer it is necessary to note the following recommendations:

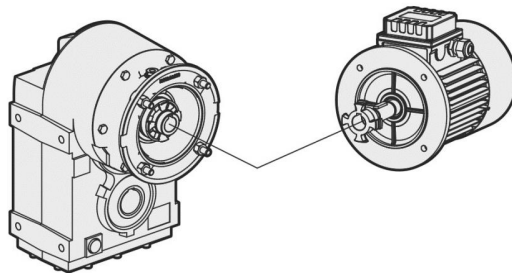
- Check the correct direction of rotation of the gear reducer output shaft before fitting the unit to the machine.
- In the case of particularly lengthy periods of storage (4/6 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommended to change it since the rubber could stick to the shaft or may even have lost the elasticity it needs to function properly.
- Whenever possible, protect the gear reducer against solar radiation and bad weather.
- Ensure the motor cools correctly by ensuring good passage of air from the fan side.
- In the case of ambient temperatures < 23°F or > 104°F MOTOVARIO TECHNICAL SERVICE.
- The various parts (pulleys, gear wheels, couplings, shafts, etc.) must be mounted on the solid or hollow shafts using special threaded holes or other systems that anyhow ensure correct operation without risking damage to the bearings or external parts of the units. Lubricate the surfaces in contact to avoid seizure or oxidation.
- Painting must definitely not go over rubber parts and the holes on the breather plugs, if any.
- For units equipped with oil plugs, replace the closed plug used for shipping with the special breather plug.
- Check the correct level of the lubricant through the indicator, if there is one.
- Starting must take place gradually, without immediately applying the maximum load.
- When there are parts, objects or materials under the motor drive that can be damaged by even limited spillage of oil, special protection should be fitted.

1.6.2 Installation

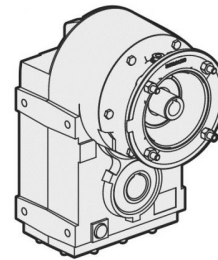
Assembling motor on pam flange

When the unit is supplied without motor, it is necessary to follow these recommendation to ensure the correct assembly of the electric motor. Check that the tolerances for the motor shaft and flange correspond to the “standard”. Carefully clean the shaft, spigot and surfaces of the flange removing traces of paint and dirt, and confirm the key is fitted correctly. Fit the half coupling/sleeve to the motor shaft (see picture) taking care to ensure the motor shaft and bearings are not damaged by avoiding excessive force and where necessary using assembly equipment. Place the couplings elastic element onto the motor half coupling and position the motor up to the gear unit ensuring the coupling element is aligned with the driven half coupling. Complete the assembly using the fixing bolts. Key-ways with tightened tolerances.

Flexible joint



PAM Sleeve



Motovario products are supplied with the following surface treatment features:

Grey-coloured cast-iron cases for gears

- Die-cast materials are always painted.

Grey-coloured cast-iron inspection cover: The gear reducer S... series with 2, 3 stages size 125, 140, 150 are supplied with grey-coloured cast-iron closing cover and a metal nameplate printed.



Painting specifications:

- Orange-peel blue epoxy-polyester RAL 5010. Polyester resin based heat-hardening powders, altered with epoxy resins.
Mechanical properties: Tests carried out onto degreased Unichim white lattens film thickness: 2.5 mils comply with the following specifications: adherence (ISO2409).
Heat resistance: 24 HOURS AT 302°F.
Corrosion strength: ASTM B 117/97 salt fog from 100 to 500 hours depending on the support's preliminary treatment.

Performance:

- Loading capacity in accordance with DIN 3990, ISO 6336, AGMA 2101, ISO 10300, DIN 3991, ISO 281, DIN 743.

Efficiency η :

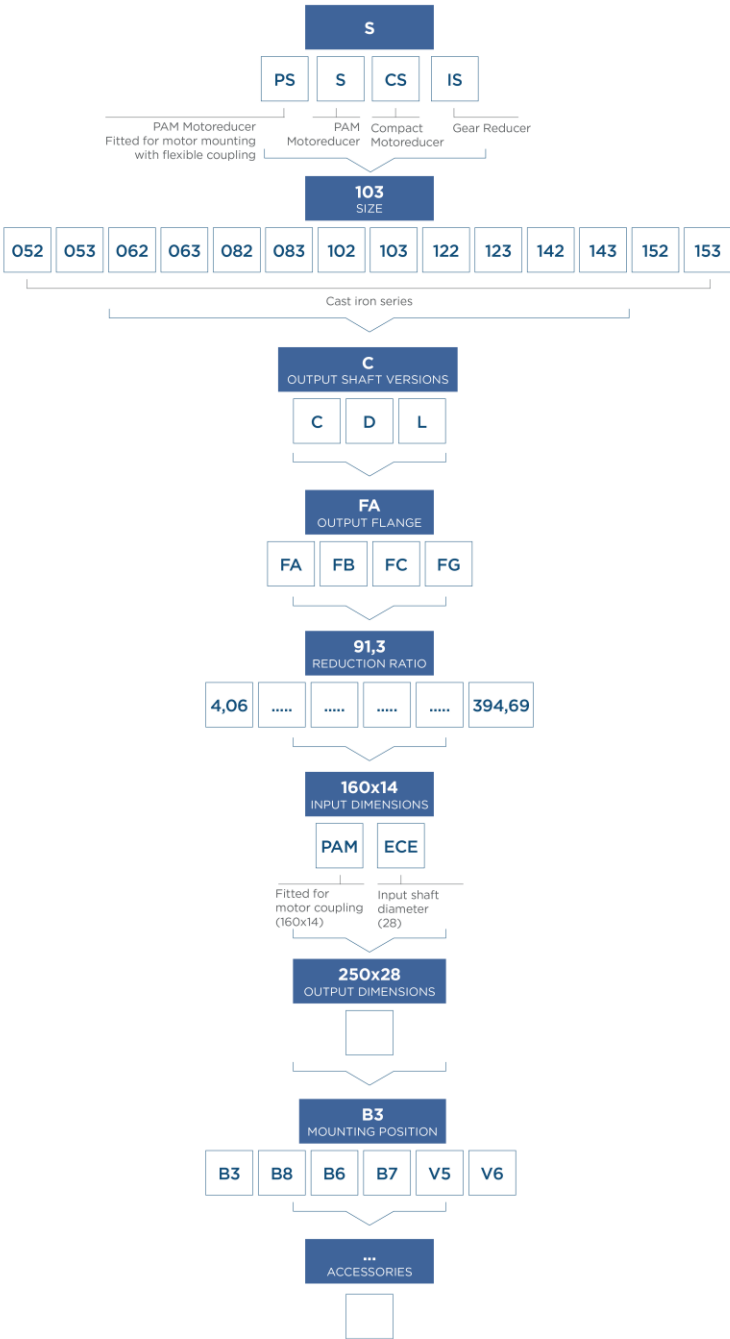
- The efficiency is the ratio between the output power P_2 and the power absorbed by the gear reducer P_1 : $\eta = P_2 / P_1$.

S-range shaft-mounted reducers have an average value equal to:

S..2 stages = 0,96

S..3 stages = 0,94

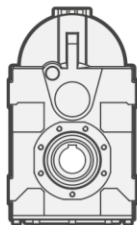
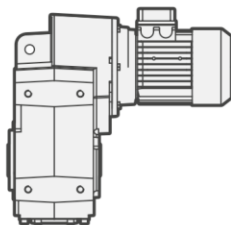
2.2.1 Designation



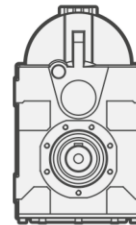
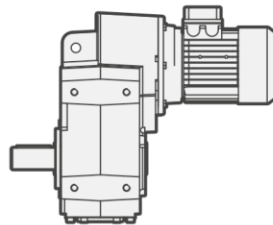
2.2.2 Versions

S... C - S... D - S... L

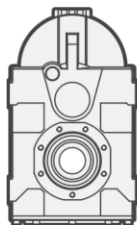
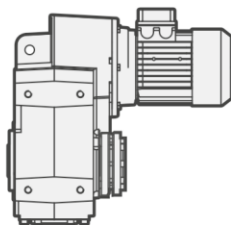
S... C FOOT-FLANGE MOUNTING / HOLLOW SHAFT



S... D FOOT-FLANGE MOUNTING / D SOLID SHAFT

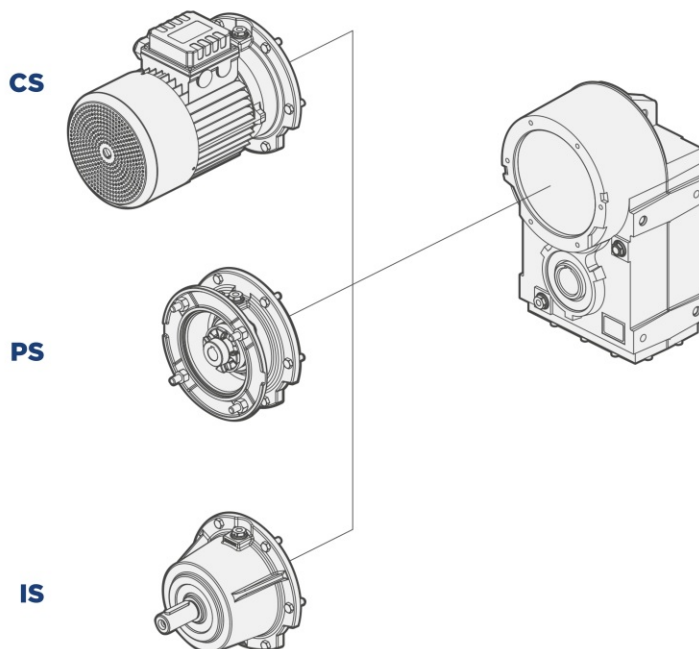


S... L FOOT-FLANGE MOUNTING / SHRINK DISC SHAFT



2.2.3 Modularity

S GREY CAST IRON SERIES

**CS**

Compact electric motor versions

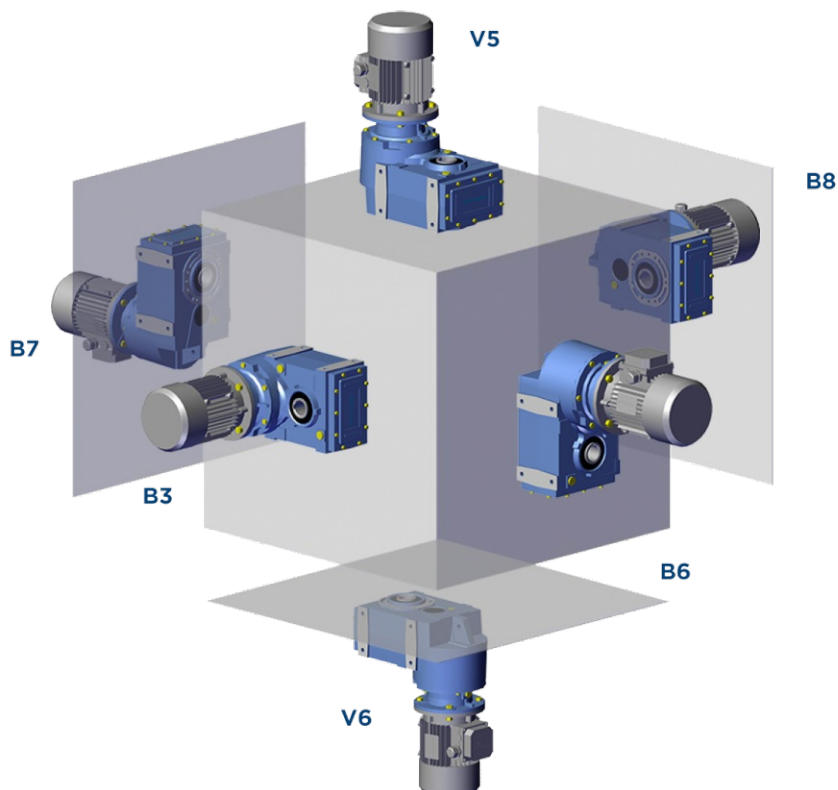
PSFitted for motor mounting
with flexible coupling**IS**

Input shaft versions

2.3 MOUNTING POSITIONS

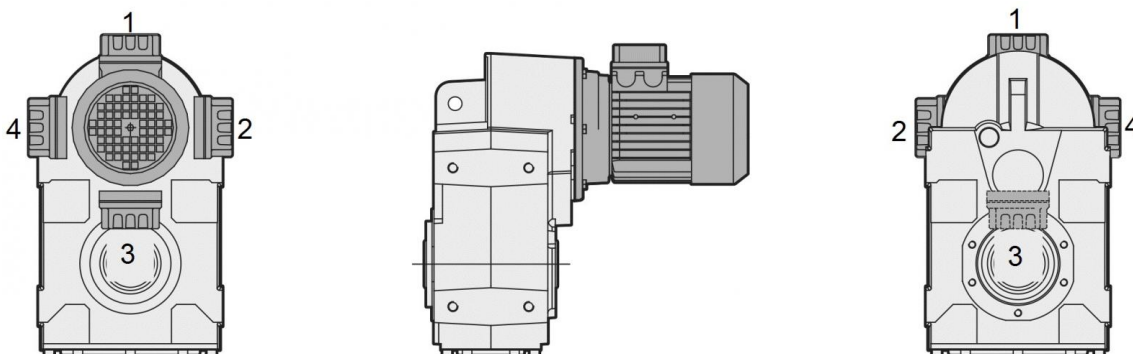
2.3.1 Mounting positions

The mounting position of the gear unit identifies its space orientation. B3 mounting position, as from a technical point of view, ensures lower oil splash, better lubrication and less heating.



2.3.2 Position of terminal box

Unless otherwise specified when ordering, the gear reducer is supplied with terminal box in position 1.



2.4.1 Information

The scheme below indicates the nominal thermal power Pth capacity [HP] according to the following conditions:

- mounting position B3
- continuous operation at input speed ≤ 1800 rpm
- environment temperature 77°F
- sea level altitude
- air speed around the gear reducer ≥ 38 ips
- absence of external radial and/or axial loads

$n_1=1,750\text{rpm}$	
	Pth [HP]
S052	7.5
S062	11
S082	20
S102	26
S122	40
S142	60
S152	70

A correct lubrication and a proper running condition of the gearbox are guaranteed only applying an input power not exceeding Pth (at the above reference conditions) (T oil max=203°F).

NOTE: Normally, three stages gearboxes do not require thermal power verification because the thermal rating usually exceed the mechanical one.

2.4.2 Verification

Application check

Except for continuous operating times below two hours and successive pauses capable of bringing the gear reducer back to ambient temperature, for each application it is peremptory to verify the gear reducer's thermal limit according to the following formula: $P_1 < P_{th} * F_c * F_v * F_a$, where:

- P_1 = input power to the gear reducer
- P_{th} = thermal power at the reference conditions (see above table)
- F_c = ambient and operating temperature correction factor
- F_v = ventilation correction factor
- F_a = altitude correction factor

The correction factors refer to different operating conditions compared to the reference conditions, and are provided by the following ISO14179 tables:

		Duty per hour of operation %				
		100	80	70	40	20
Ambient temperature °F	13.4	1.15	1.21	1.32	1.55	2.07
	24.1	1.07	1.12	1.23	1.44	1.93
	33.5	1.00	1.05	1.15	1.35	1.80
	40.2	0.93	0.98	1.07	1.26	1.67
	53.6	0.83	0.87	0.95	1.12	1.49
	57.7	0.75	0.79	0.86	1.01	1.35
	67.1	0.67	0.70	0.77	0.90	1.21

Altitude [ft]	F_a
0*	1
2460	0.95
4921	0.9
7382	0.85
9843	0.81

Ventilation correction factor	F_v
Stagnant air (<1.12 mph)	0.75
Indoor installation with slight ventilation	1
Indoor installation with good ventilation (>3.13 mph)	1.4
Outdoor installation (>8.3 mph)	1.9

*Sea level

In case of operation at input speeds exceeding 2000 rpm, or ambient temperatures greater than 104°F, it is advisable to contact our technical department.

2.5.1 Critical applications

S	050	060	080	100	125	140	150
2000 < n1 < 3000	✓	✓	✓	✓	✓	B	B
V6	B	B	B	B	B	B	B
n1 > 3000	B	B	B	B	B	A	A
...L : V5 - V6	B	B	B	B	B	B	B
(*) ...L	B	B	B	B	B	B	B

✓ Verified application

A Application not recommended

B Check the application and/or call MOTOVARIO TECHNICAL SERVICE.

(*) The shrink disc is designed only to transmit the output torque.

In case of mounting position with radial and/or axial loads, please contact MOTOVARIO TECHNICAL SERVICE.

2.5.2 Information

The performance given in the catalogue correspond to mounting position B3 or similar, when the first stage is not entirely immersed in oil. For other mounting positions and/or particular input speeds, refer to the tables that highlight different critical situations for each size of gear reducer. It is also necessary to take due consideration of and carefully assess the following applications by calling MOTOVARIO TECHNICAL SERVICE:

- To avoid the use as multiplier.
- Use in services that could be hazardous for people if the gear reducer fails.
- Applications with especially high inertia.
- Use as a lifting winch.
- Applications with high dynamic strain on the case of the gear reducer.
- In places with T_{amb} under 23°F °C or over 104°F.
- Use in chemically aggressive environments.
- Use in a salty environment.
- Mounting positions not envisaged in the catalogue.
- Use in radioactive environments.
- Use in environments pressures other than atmospheric pressure.

Avoid applications where even partial immersion of the reducer is required.

In the presence of overloading due to full load, braking, shocks or other static and dynamic causes, please verify that the peak torque is less than $2 \cdot M_{n2}$.

2.6 MOTOR FLANGE AVAILABILITY

These tables report all possible dimensions. Please verify service factor.
#Ratio not existent for version IS.

PS 052			
i	56C	140TC	180TC
8.63	•	•	•
11.14	•	•	•
12.00	•	•	•
13.66	•	•	•
15.27	•	•	•
16.29	•	•	•
18.63	•	•	•
19.73	•	•	•
21.04	•	•	•
21.53	•	•	•
24.07	•	•	•
25.20	•	•	•
25.79	•	•	•
27.81	•	•	•
30.00	•	•	
32.55	•	•	•
33.00	•	•	
34.09	•	•	
36.55	•	•	
38.75	•	•	
39.90	•	•	•
42.63	•	•	
46.00	•	•	
47.20	•	•	
52.25	•	•	
57.86	•	•	
59.42	•	•	
72.83	•	•	

PS 053		
i	56C	140TC
36.50	•	•
47.14	•	•
57.79	•	•
63.74	•	•
78.14	•	•
74.20	•	•
95.84	•	•
117.48	•	•
137.45	•	•
177.55	•	•
198.45	•	
217.64	•	•
256.33	•	
314.21	•	

2.6 MOTOR FLANGE AVAILABILITY

PS 062			
i	56C	140TC	180TC
8.00	•	•	•
8.92	•	•	•
9.55	•	•	•
10.65	•	•	•
11.71	•	•	•
13.06	•	•	•
13.36	•	•	•
15.94	•	•	•
16.16	•	•	•
19.29	•	•	•
19.55	•	•	•
23.18	•	•	•
23.75	•	•	•
25.14	•	•	•
27.66	•	•	•
30.00	•	•	•
33.93	•	•	•
36.57	•	•	•
39.38	•	•	•
43.64	•	•	•
46.10	•	•	•
48.30	•	•	•
53.53	•	•	•
55.00	•	•	•
67.47	•	•	•

PS 063		
i	56C	140TC
33.57	•	•
37.77	•	•
40.05	•	•
49.13	•	•
55.29	•	•
58.72	•	•
65.85	•	•
68.25	•	•
73.63	•	•
81.43	•	•
99.89	•	•
126.43	•	•
150.85	•	•
182.53	•	•
185.05	•	•
217.79	•	•
267.16	•	•

PS 082				
i	56C	140TC	180TC	210TC
7.34	•	•	•	•
8.06	•	•	•	•
9.94	•	•	•	•
11.61	•	•	•	•
12.75	•	•	•	•
14.04	•	•	•	•
15.43	•	•	•	•
15.73	•	•	•	•
17.29	•	•	•	•
19.03	•	•	•	•
20.14	•	•	•	•
22.13	•	•	•	•
24.00	•	•	•	•
26.05	•	•	•	•
27.29	•	•	•	•
28.67	•	•	•	•
29.60	•	•	•	•
31.78	•	•	•	•
34.91	•	•	•	•
35.50	•	•	•	•
40.05	•	•	•	•
43.05	•	•	•	•
50.25	•	•	•	•
54.27	•	•	•	•
61.98	•	•	•	•

PS 083			
i	56C	140TC	180TC
67.52	•	•	•
74.18	•	•	•
81.71	•	•	•
91.49	•	•	•
100.62	•	•	•
117.17	•	•	•
128.73	•	•	•
136.34	•	•	•
158.76	•	•	•
184.88	•	•	•
203.11	•	•	•
205.34	•	•	•
226.04	•	•	•
250.50	•	•	•
266.13	•	•	•
292.36	•	•	•
315.73	•	•	•
360.58	•	•	•

2.6 MOTOR FLANGE AVAILABILITY

PS 102					
i	56C	140TC	180TC	210TC	250TC
8.06				•	•
8.85				•	•
10.88				•	•
12.75				•	•
13.99				•	•
15.43				•	•
17.21				•	•
19.00	•	•	•	•	•
20.83	•	•	•	•	•
22.13	•	•	•	•	•
24.28	•	•	•	•	•
26.33	•	•	•	•	•
29.87	•	•	•	•	•
32.40	•	•	•	•	•
34.91	•	•	•	•	•
38.30	•	•	•	•	•
42.53	•	•	•	•	•
44.00	•	•	•		
47.13	•	•	•	•	•
50.25	•	•	•		
55.14	•	•	•		
59.40	•	•	•		
67.84	•	•	•		

PS 103			
i	56C	140TC	180TC
74.18	•	•	•
81.39	•	•	•
89.77	•	•	•
100.15	•	•	•
110.55	•	•	•
121.29	•	•	•
128.73	•	•	•
141.24	•	•	•
173.78	•	•	•
188.51	•	•	•
203.11	•	•	•
222.85	•	•	•
224.76	•	•	•
274.20	•	•	•
280.89	•	•	
292.36	•	•	
320.79	•	•	
345.60	•	•	
394.69	•	•	

PS 122						
i	140TC	180TC	210TC	250TC	280TC	320TC
8.48			•	•	•	•
9.30			•	•	•	•
10.24			•	•	•	•
11.42			•	•	•	•
12.63			•	•	•	•
13.84			•	•	•	•
16.99			•	•	•	•
21.25		•	•	•	•	
22.37		•	•	•	•	
23.29		•	•	•	•	
26.15		•	•	•	•	
28.60		•	•	•	•	
30.51		•	•	•	•	
32.76		•	•	•	•	
33.44		•	•	•	•	
35.20		•	•	•	•	
41.07		•	•	•	•	
43.60	•	•	•	•		
44.63	•	•	•	•		
49.04	•	•	•	•		
53.75	•	•	•	•		
66.00	•	•	•	•		

PS 123					
i	140TC	180TC	210TC	250TC	280TC
64.84		•	•	•	•
71.07		•	•	•	•
78.46		•	•	•	•
87.27		•	•	•	•
105.91	•	•	•	•	
112.52	•	•	•	•	
123.33	•	•	•	•	
130.04	•	•	•	•	
133.78	•	•	•	•	
151.43	•	•	•	•	
177.53	•	•	•	•	
194.59	•	•	•	•	
215.60	•	•	•	•	
238.93	•	•	•	•	
# 255.54	•	•			
# 280.10	•	•			
# 301.16	•	•			
# 343.93	•	•			

2.6 MOTOR FLANGE AVAILABILITY

S142				
i	210TC	250TC	280TC	320TC
4.11	•	•	•	•
4.58	•	•	•	•
5.14	•	•	•	•
5.81	•	•	•	•
6.21	•	•	•	•
7.31	•	•	•	•
8.20	•	•	•	•
9.28	•	•	•	•
9.91	•	•	•	•
11.40	•	•	•	•
12.81	•	•	•	•
14.27	•	•	•	•
16.00	•	•	•	•
18.10	•	•	•	•
19.33	•	•	•	•
22.24	•	•	•	•
25.26	•	•	•	
28.33	•	•	•	
32.05	•	•	•	
34.22	•	•	•	
39.37	•	•	•	

S143			
i	180TC	210TC	250TC
45.76	•	•	•
50.97	•	•	•
57.17	•	•	•
64.67	•	•	•
69.05	•	•	•
79.45	•	•	•
98.80	•	•	
110.05	•	•	
123.43	•	•	
139.64	•	•	
149.09	•	•	
157.48	•		
171.54	•	•	
175.40	•		
196.73	•		
222.56	•		
237.62	•		
273.41	•		

S152				
i	250TC	280TC	320TC	360TC
4.06	•	•	•	•
4.53	•	•	•	•
5.20	•	•	•	•
5.71	•	•	•	•
6.52	•	•	•	•
7.28	•	•	•	•
8.35	•	•	•	•
9.17	•	•	•	•
10.41	•	•	•	•
12.46	•	•	•	•
13.90	•	•	•	•
15.96	•	•	•	•
17.52	•	•	•	•
19.90	•	•	•	•
22.88	•	•	•	•
27.10	•	•	•	•
29.75	•	•	•	•
33.79	•	•	•	•
38.84	•	•	•	•

PS 153			
i	210TC	250TC	280TC
40.10	•	•	•
44.75	•	•	•
51.37	•	•	•
56.39	•	•	•
64.05	•	•	•
73.62	•	•	•
87.16	•	•	
97.27	•	•	
111.66	•	•	
122.56	•	•	
139.20	•	•	
154.01	•		
160.01	•		
176.81	•		
194.05	•		
220.41	•		
253.35	•		

2.7 OUTPUT SHAFT BEARINGS

S	S050		S060		S080		S100	
Versions	Standard	On request	Standard	On request	Standard	On request	Standard	On request
C	1	/	1	2	1 (Ø40) /	2 (Ø40) 1 (Ø45)	1	2
D	1	/	1	/	2	/	2	/
L	1	/	1	/	1	/	1	/

S	S125		S140		S150	
Versions	Standard	On request	Standard	On request	Standard	On request
C	1	2	1	2	1	2
D	2	/	2	/	2	/
L	1	/	1	/	1	/

1 - Ball Bearing

2 - Roller bearings

/ - Not available

2.8.1 Information

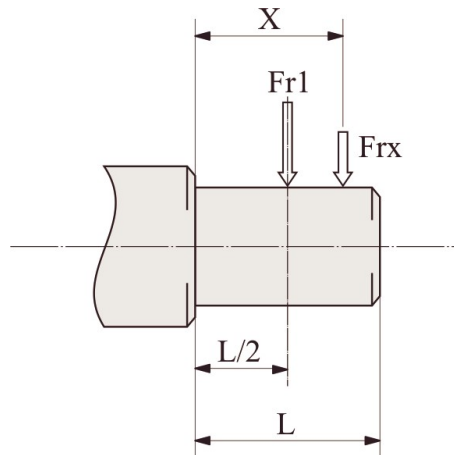
The value of the admissible radial load [lb] is given in the tables relating to the performance of the gear reducer at issue. It is related to the load applied on the centre line of the shaft and in the most unfavourable conditions of angle of application and direction of rotation. The maximum admissible axial loads are 1/5 of the value of the given radial load when they are applied in combination with the radial load. The tables relating to the output shafts give the maximum admissible value. This value must never be exceeded since it relates to the strength of the case. Particular conditions of radial load higher than the limits of the catalogue may occur. In this case, call our Technical Service and provide details on the application: direction of the load, direction of rotation of the shaft, type of service. In case of double extension shafts with radial load applied on both ends, the max. admissible radial loads must be defined according to the specific running conditions, in this case call our Technical Service. The radial load on the shaft is calculated with the following formula: **$F_{re} = (2 \cdot M \cdot f_z) / D \leq F_{r1}$ or F_{r2}**

- **F_{re}** [lb] Resulting radial load
- **M** [lb-in] Torque on the shaft
- **D** [in] Diameter of the transmission member mounted on the shaft
- **F_{r1} - F_{r2}** [lb] Value of the maximum admitted radial load (see relative tables)
- **f_z** = 1.1 gear pinion - 1.4 chain wheel - 1.7 v-pulley - 2.5 flat pulley

2.8.2 Input

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load F_{r1} with the following formula: **$F_{rx} = (F_{r1} \cdot a) / (b + x)$**

- **a** , **b** = values given in the tables
- **x** = distance from the point of application of the load to the shaft shoulder



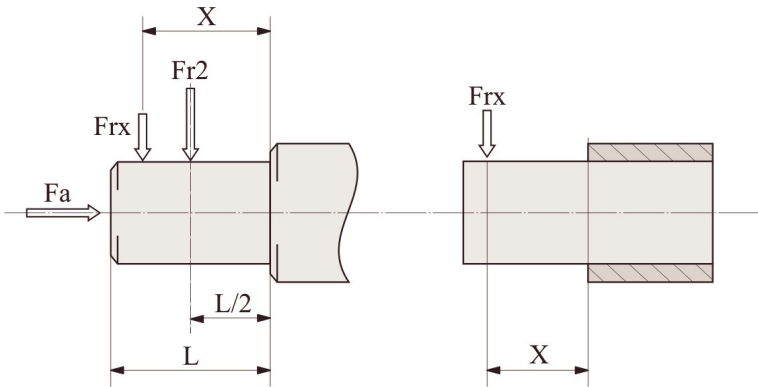
IS	052/053	062/063	082/083	102/103	122/123	142/143	152/153
a	4.13	4.13	5.39	5.39	6.89	6	7
b	3.15	3.15	4.25	4.25	5.31	4	5
F_{r1} max(**)	337	562	809	809	1619	944	1169

(** F_{r1} max) Max admissible value of the reducer in static conditions and/or for limited operations. For continuous overhung loads please check the values on the performances tables calculated according to the casing, the shaft and bearings.

2.8.3 Output

When the radial load is not on the centre line of the shaft, it is necessary to adjust the admissible radial load Fr2 with the following formula: **Fr_x=(Fr₂*a)/(b+x)**

- **a , b** = values given in the tables
- **x** = distance from the point of application of the load to the shaft shoulder



S	052/053	062/063	082/083	102/103	122/123	142/143	152/153
a	4.92	5.71	7.48	8.86	10.43	14.19	16.12
b	3.78	4.57	5.91	6.89	7.95	10.28	11.77
D (Fr ₂ max ^{**})	1349	2248	4047	4946	6744	7868	8992
C (Fr ₂ max ^{**})	1349	899	1619	2023	2518	4159	4361

(**Fr₂ max) Max admissible value of the reducer in static conditions and/or for limited operations. For continuous overhung loads please check the values on the performances tables calculated according to the casing, the shaft and bearings.

2.9.1 Information

In cases of ambient temperatures not envisaged in the table, call our Technical Service. In the case of temperatures under - 22°F or over 140°F it is necessary to use oil seals with special properties. For operating ranges with temperatures under 32°F it is necessary to consider the following:

1. The motors need to be suitable for operation at the envisaged ambient temperature.
2. The power of the electric motor needs to be adequate for exceeding the higher starting torques required.
3. In case of cast-iron gear reducers, pay attention to impact loads since cast iron may have problems of fragility at temperatures under 5°F.
4. During the early stages of service, problems of lubrication may arise due to the high level of viscosity taken on by the oil and so it is wise to have a few minutes of rotation under no load.

Oil must be changed after approx. 10000 hours/2 years of operation; this time varies based on the type of service and on the environment inside which the gear reducer is installed. Units not featuring any oil plug are life-lubricated, and therefore maintenance-free.

2.9.2 Lubricants

Specifications of lubricants recommended by Motovario.

The units **S052/3 ÷ 102/3** are supplied with ENI BLASIA 220 oil, unless otherwise specified by the client.

The units **S122/3 ÷ 152/3** are supplied without lubricant.

	S052/3 - 152/3	
	Mineral oil	
T_{amb} °F ISO/SAE	(+23) - (+104) ISO VG220	(+5) - (+77) ISO VG150
ENI	BLASIA 220	BLASIA 150
SHELL	OMALA S2 G 220	OMALA S2 G 150
KLUBER	Kluberoil GEM 1-220N	Kluberoil GEM 1-150N
MOBIL	MOBILGEAR 600 XP220	MOBILGEAR 600 XP150
CASTROL	ALPHA SP 220	ALPHA SP 150
BP	ENERGOL GR-XP220	ENERGOL GR-XP150
PETRONAS	GEAR MEP 220	GEAR MEP 150

2.9.3 Special lubricants

	T _{amb} °F	Polyglycol synthetic oil
ENI	(-22) - (+86)	Blasia S 150 (ISO VG150)
	(-4) - (+104)	Blasia S 220 (ISO VG220)
MOBIL	(-49) - (+32)	SHC 624 (ISO VG32)
	(-40) - (+41)	SHC 626 (ISO VG68)
KLUBER	(-40) - (+41)	Klubersynth GH 6-32 (ISO VG32)
	(-31) - 50)	Klubersynth GH 6-80 (ISO VG80)
	(-22) - (+104)	Klubersynth GH 6-150 (ISO VG150)
	(-13) - (+104)	Klubersynth GH 6-220 (ISO VG220)
	(+5) - (+122)	Klubersynth GH 6-460 (ISO VG460)
	(+14) - (+158)	Klubersynth GH 6-680 (ISO VG680)

	T _{amb} °F	Polyglycol synthetic oil for food grade
KLUBER	(-22) - (+59)	Klubersynth UH1-6 100 (ISO VG100)
	(-13) - (+104)	Klubersynth UH1-6 220 (ISO VG220)
	(+5) - (+104)	Klubersynth UH1-6 320 (ISO VG320)
	(+5) - (+122)	Klubersynth UH1-6 460 (ISO VG460)
	(+14) - (+122)	Klubersynth UH1-6 680 (ISO VG680)

If 'special' lubricant is required please contact for Technical Assistance.

2.9.4 Quantity

- For the gear reducers S ... series with 2, 3 stages it is always necessary to specify the envisaged position.
- The gear S... series with 2, 3 stages sizes 050, 060 gear reducers are supplied complete with lubricant, have no oil plugs and need no maintenance.
- The gear S... series with 2, 3 stages sizes 080, 100 gear reducers are supplied complete with lubricant and are fitted with oil plugs to suit any mounting position included in the catalogue
- The gear S... series with 2, 3 stages sizes 125, 140, 150 have no lubricant and are fitted with oil plugs to suit any mounting position included in the catalogue. The oil filling can be done on request, in this case it is recommended, after installation, to replace the closed plug used for transportation with the supplied breather plug. When the reduction unit is supplied without lubricant, it is provided with a label to be filled.

Oil quantity in the table (litres ~) are indicative; for a proper use you will have to refer to the level plug or the dipstick. Any level difference could depend on construction tolerances, but also by the placement of the unit or by the mounting surface at the customer's premises. It is appropriate to check and, if necessary, restores the level when the units are installed.

S - CS	052/053	062/063	082/083	102/103	122/123	142	143	152	153
B3	2,05	2,4	6	9	14,7	22	20	29,7	27
B8	1,8	2,3	4	6	11,8	20	20	31	31
B6	2,4	2,9	5,7	8	16	22 (25)	18 (24,5)	29,3 (42)	24 (40)
B7	2,1	2,6	4,5	6,8	11,3	17,5	14	22,5	18
V5	2,8	3,5	6,8	10,3	19	24,5	23,5	34,4	33
V6	2,4	2,9	6,4	9,9	18	20,8	20	33,3	32

(...) 142-143-152-153 quantity of oil [l] for gearbox with backstop device

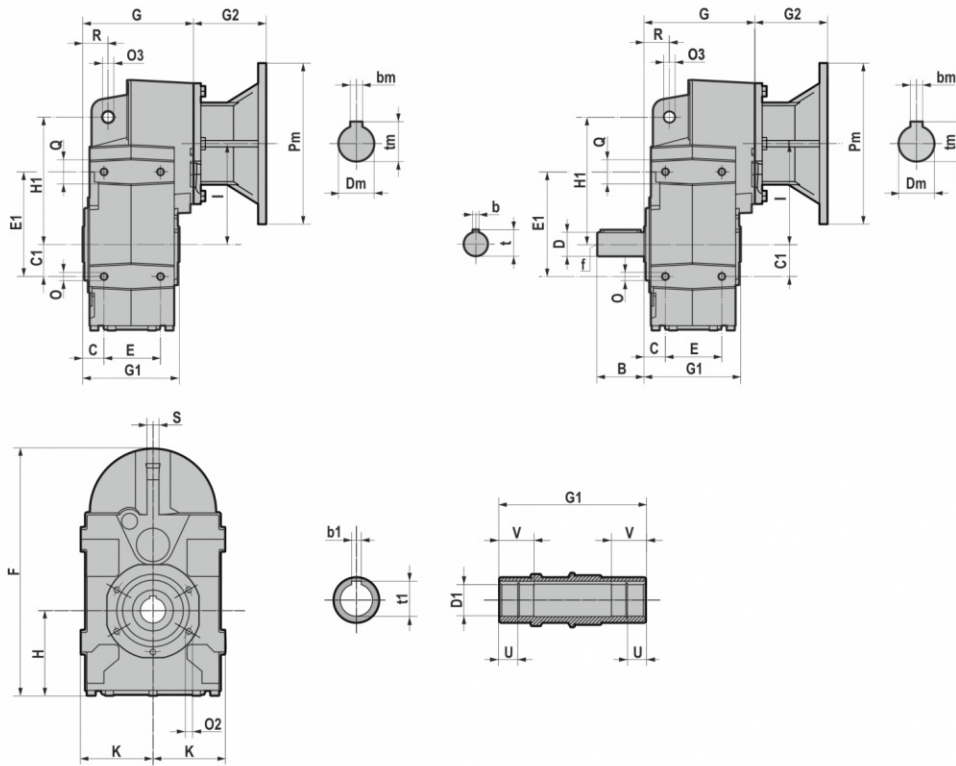
2.10 MOMENTS OF INERTIA

The following values of J1 moment of inertia are only estimated, referred to the maximum calculated, and to the gearbox input side.

S-2/3	J ₁ [Kg*m ²]	J ₁ [lb*in ²]
052/053	0.0004	1.3669
062/063	0.0006	2.0503
082/083	0.0015	5.1258
102/103	0.0034	11.6184
122/123	0.0085	29.0460
142/143	0.0384	131.2194
152/153	0.0830	283.6253

3.1 REDUCERS/GEARED MOTORS

3.1.1 S 052...123



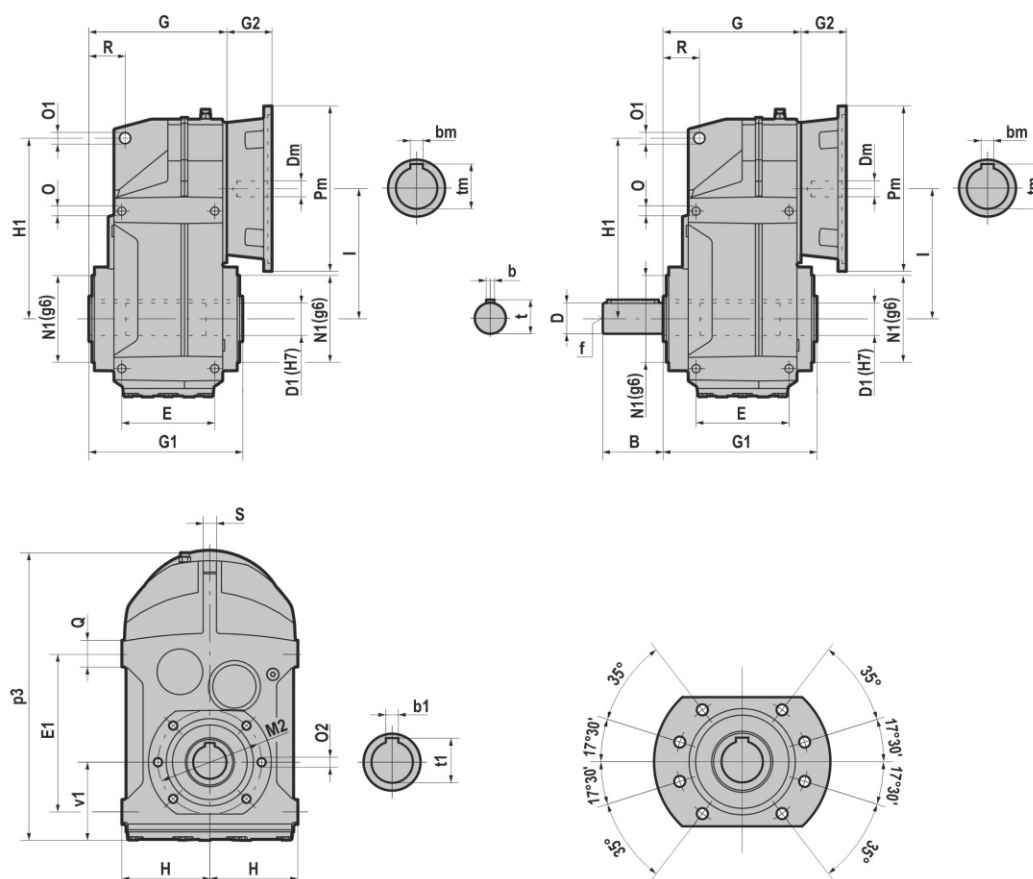
	D1 +0.001/0	b1	t1	U	V	B	D	b	t	f	C	C1	E	E1
S052/S053	1.25	0.25	1.37	/	1.18	2.36	1.25 0/-0.0005	0.25	1.36	1/2-13	1.04	1.57	2.76	5.12
S062/S063	1.38	0.31	1.52	0.47	1.38	2.76	1.375 0/-0.0005	0.31	1.51	1/2-13	1.18	1.77	3.15	5.79
S082/S083	1.50	0.38	1.67	/	1.65	3.15	1.625 0/-0.001	0.38	1.80	5/8-11	1.46	2.36	4.17	7.48
S102/S103	2.00	0.50	2.22	/	1.97	3.94	2 0/-0.001	0.50	2.22	3/4-10	1.44	2.76	5.39	10.83
S122/S123	2.38	0.63	2.65	/	2.76	4.72	2.375 0/-0.001	0.63	2.65	3/4-10	1.69	3.94	6.50	12.20

	F	G	G1	H	H1	I	K	O	O3	O2	Q	R	S
S052/S053	12.24	5.41	4.72	4.21	6.22	4.92	3.56	M10x18	0.55	M8x16 (n.5)	1.18	1.24	0.59
S062/S063	12.6	6.24	5.51	3.82	6.69	5.63	3.80	M12x20	0.55	M8x16 (n.5)	1.57	1.26	0.59
S082/S083	15.08	8.15	7.09	4.21	8.58	6.69	4.43	M12x20	0.55	M10x20 (n.7)	1.73	1.61	0.79
S102/S103	16.77	8.56	8.27	4.69	10.94	7.09	5.12	M16x26	0.87	M12x22 (n.7)	1.97	1.97	0.79
S122/S123	21.97	10.12	9.45	6.54	13.62	9.25	6.50	M16x30	0.87	M14x28 (n.7)	1.97	2.44	1.02

NEMA	Pm x Dm	G2			
		S052/S053 S062/S063	S082/S083	S102/S103	S122/S123
56C	6.5"x0.625"	3.74	2.95	2.95	/
140TC	6.5"x0.875"	3.74	2.95	2.95	2.58
180TC	9"x1.125"	4.33	3.54	3.54	3.17
210TC	9"x1.375"	/	6.02	6.02	5.65
250TC	9"x1.625"	/	/	6.02	5.65
320TC	11"x1.875"	/	/	/	6.89
360TC	13.375"x2.125"	/	/	/	7.03

NEMA	Pm	Dm	tm	bm
56C	6.69	0.625	0.71	0.1875
140TC	6.69	0.875	0.97	0.1875
180TC	9.06	1.125	1.24	0.2500
210TC	9.06	1.375	1.52	0.3125
250TC	9.06	1.625	1.80	0.3750
280TC	11.02	1.875	2.10	0.5000
320TC	13.39	2.125	2.35	0.5000
360TC	13.39	2.375	2.65	0.6250

3.1.2 S 142...153



	D1	b1	t1	B	D	b	t	f	E	E1	G	G1
S142/S143	2.76	0.79	2.95	5.51	2.875	0.75	3.2	3/4-10UNC	8.07	13.78	11.1	11.81
	2.56	0.71	2.73									
S152/S153	3.15	0.87	3.36	6.69	3.625	0.875	4.01	1-8UNC	8.66	15.75	12.66	13.78
	3.54	0.98	3.76									

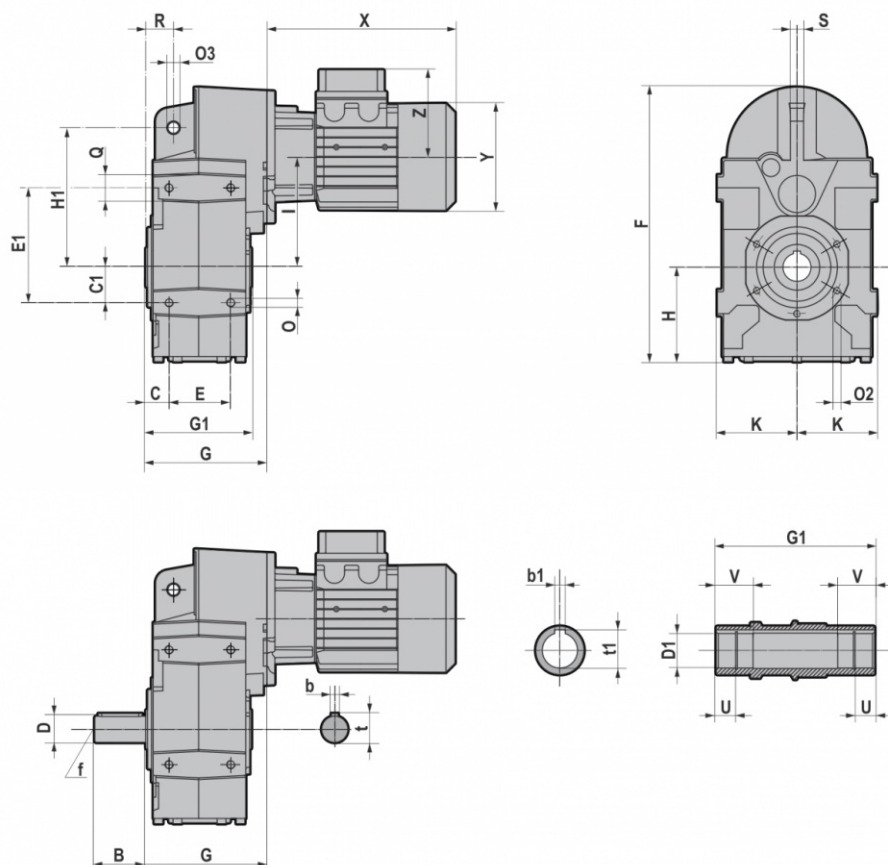
	H	H1	I	N1	M2	O	O1	O2	p3	Q	R	S	v1
S142/S143	7.87	15.55	10.59	7.09	8.66	M20x28	1.02	M16x26	24.21	1.97	2.76	1.18	6.97
S152/S153	8.86	19.09	12.80	8.27	10.24	M24x36	1.02	M20x30	28.74	2.36	3.46	1.42	8.39

NEMA	Pm x Dm	G2	
		S142/S143	S152/S153
180TC	9"x1.125"	3.50	/
210TC	9"x1.375"	3.50	4.57
250TC	9"x1.625"	4.86	4.57
280TC	11"x1.875"	4.86	4.57
320TC	13.375"x2.125"	5.53	5.89
360TC	13.375"x2.375"	/	5.89

NEMA	Pm	Dm	tm	bm
180TC	9.06	1.125	1.24	0.2500
210TC	9.06	1.375	1.52	0.3125
250TC	9.06	1.625	1.80	0.3750
280TC	11.02	1.875	2.10	0.5000
320TC	13.39	2.125	2.35	0.5000
360TC	13.39	2.375	2.65	0.6250

3.1 REDUCERS/GEARED MOTORS

3.1.3 CS 052...123



	D1 +0.001/0	b1	t1	U	V	B	D	b	t	f	C	C1	E	E1
CS052/CS053	1.25	0.25	1.37	/	1.18	2.36	1.25 0/-0.0005	0.25	1.36	1/2-13	1.04	1.57	2.76	5.12
CS062/CS063	1.38	0.31	1.52	0.47	1.38	2.76	1.375 0/-0.0005	0.31	1.51	1/2-13	1.18	1.77	3.15	5.79
CS082/CS083	1.50	0.38	1.67	/	1.65	3.15	1.625 0/-0.001	0.38	1.80	5/8-11	1.46	2.36	4.17	7.48
CS102/CS103	2.00	0.50	2.22	/	1.97	3.94	2 0/-0.001	0.50	2.22	3/4-10	1.44	2.76	5.39	10.83
CS122/CS123	2.38	0.63	2.65	/	2.76	4.72	2.375 0/-0.001	0.63	2.65	3/4-10	1.69	3.94	6.50	12.20

	F	G	G1	H	H1	I	K	O	O3	O2	Q	R	S
CS052/CS053	12.24	5.41	4.72	4.21	6.22	4.92	3.56	M10x18	0.55	M8x16 (n.5)	1.18	1.24	0.59
CS062/CS063	12.6	6.24	5.51	3.82	6.69	5.63	3.80	M12x20	0.55	M8x16 (n.5)	1.57	1.26	0.59
CS082/S083	15.08	8.15	7.09	4.21	8.58	6.69	4.43	M12x20	0.55	M10x20 (n.7)	1.73	1.61	0.79
CS102/CS103	16.77	8.56	8.27	4.69	10.94	7.09	5.12	M16x26	0.87	M12x22 (n.7)	1.97	1.97	0.79
CS122/CS123	21.97	10.12	9.45	6.54	13.62	9.25	6.50	M16x30	0.87	M14x28 (n.7)	1.97	2.44	1.02

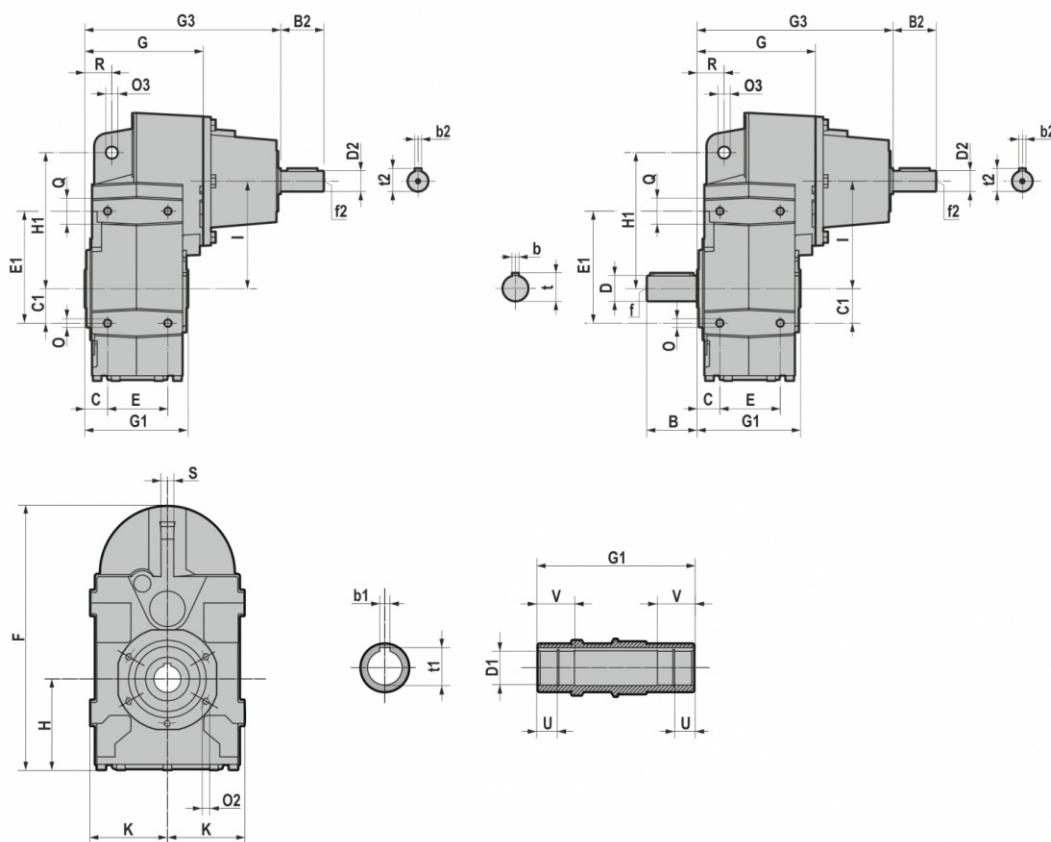
3.1 REDUCERS/GEARED MOTORS

T (IE1 - IE2 - IE3)										
		063	071	080	090S	090L	100	112	132S	132M/L
CS052/CS053 CS062/CS063	X	8.46	9.49	10.55 *11.46	11.65 *12.95	12.64 *13.94	13.11	13.82 *14.76	/	/
	Y	4.76	5.47	6.22	6.81	6.81	7.52	8.31	/	/
	Z	4.09	4.41	4.8	5.12	5.12	5.47	6.06	/	/
CS082/CS083 CS102/CS103	X	/	8.7	9.76 *10.67	10.87 *12.17	11.85 *13.15	13.19	14.02 *14.96	15.94	17.44
	Y	/	5.47	6.22	6.81	6.81	7.52	8.31	9.8	9.8
	Z	/	4.41	4.8	5.12	5.12	5.47	6.06	7.64	7.64
CS122/CS123	X	/	/	/	10.51 *11.81	11.5 *12.8	12.83	13.66 *14.61	15.59	17.09
	Y	/	/	/	6.81	6.81	7.52	8.31	9.8	9.8
	Z	/	/	/	5.12	5.12	5.47	6.06	7.64	7.64

TB (IE1 - IE2 - IE3)										
		063	071	080	090S	090L	100	112	132S	132M/L
CS052/CS053 CS062/CS063	X	10.75	12.07	13.43 *14.33	14.69 *15.98	15.67 *16.97	16.34	17.64 *18.58	/	/
	Y	4.76	5.47	6.22	6.81	6.81	7.52	8.31	/	/
	Z	4.69	5.08	5.39	6.18	6.18	6.61	7.2	/	/
CS082/CS083 CS102/CS103	X	/	11.28	12.64 *13.54	13.9 *15.2	14.88 *16.18	16.42	17.83 *18.78	19.88	21.54
	Y	/	5.47	6.22	6.81	6.81	7.52	8.31	9.8	9.8
	Z	/	5.08	5.39	6.18	6.18	6.61	7.2	9.06	9.06
CS122/CS123	X	/	/	/	13.5 *14.8	14.49 *15.79	16.02	17.44 *18.39	19.49	21.14
	Y	/	/	/	6.81	6.81	7.52	8.31	9.8	9.8
	Z	/	/	/	6.18	6.18	6.61	7.2	9.06	9.06

*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

3.1.4 IS 052...123



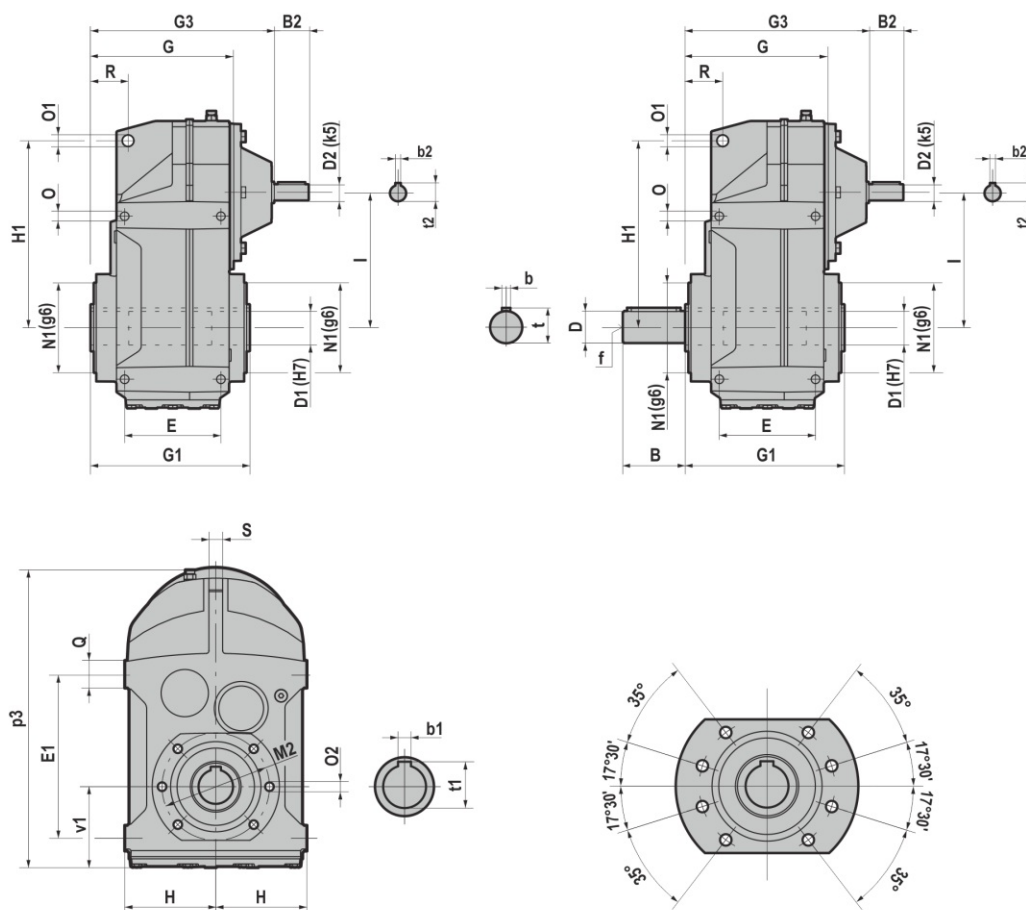
	D1 +0.001/0	b1	t1	U	V	B	D	b	t	f	C	C1	E	E1
IS052/IS053	1.25	0.25	1.37	/	1.18	2.36	1.25 0/-0.0005	0.25	1.36	1/2-13	1.04	1.57	2.76	5.12
IS062/IS063	1.38	0.31	1.52	0.47	1.38	2.76	1.375 0/-0.0005	0.31	1.51	1/2-13	1.18	1.77	3.15	5.79
IS082/IS083	1.50	0.38	1.67	/	1.65	3.15	1.625 0/-0.001	0.38	1.80	5/8-11	1.46	2.36	4.17	7.48
IS102/IS103	2.00	0.50	2.22	/	1.97	3.94	2 0/-0.001	0.50	2.22	3/4-10	1.44	2.76	5.39	10.83
IS122/IS123	2.38	0.63	2.65	/	2.76	4.72	2.375 0/-0.001	0.63	2.65	3/4-10	1.69	3.94	6.50	12.20

	F	G	G1	H	H1	I	K	O	O3	O2	Q	R	S
IS052/IS053	12.24	5.41	4.72	4.21	6.22	4.92	3.56	M10x18	0.55	M8x16 (n.5)	1.18	1.24	0.59
IS062/IS063	12.6	6.24	5.51	3.82	6.69	5.63	3.80	M12x20	0.55	M8x16 (n.5)	1.57	1.26	0.59
IS082/IS083	15.08	8.15	7.09	4.21	8.58	6.69	4.43	M12x20	0.55	M10x20 (n.7)	1.73	1.61	0.79
IS102/IS103	16.77	8.56	8.27	4.69	10.94	7.09	5.12	M16x26	0.87	M12x22 (n.7)	1.97	1.97	0.79
IS122/IS123	21.97	10.12	9.45	6.54	13.62	9.25	6.50	M16x30	0.87	M14x28 (n.7)	1.97	2.44	1.02

	G3	B2	D2	b2	t2	f2
IS052/IS053	8.96	1.97	0.875 0/-0.0005	0.19	0.96	1/4-20
IS062/IS063	9.78	1.97	0.875 0/-0.0005	0.19	0.96	1/4-20
IS082/IS083	12.60	2.76	1.375 0/-0.0005	0.31	1.51	1/2-13
IS102/IS103	13.01	2.76	1.375 0/-0.0005	0.31	1.51	1/2-13
IS122/IS123	15.10	3.15	1.625 0/-0.001	0.38	1.79	5/8-11

3.1 REDUCERS/GEARED MOTORS

3.1.5 IS 142...153



	D1	b1	t1	B	D	b	t	f	E	E1	G	G1
IS142/IS143	2.76	0.79	2.95	5.51	2.875	0.75	3.2	3/4-10UNC	8.07	13.78	11.1	11.81
	2.56	0.71	2.73									
IS152/IS153	3.15	0.87	3.36	6.69	3.625	0.875	4.01	1-8UNC	8.66	15.75	12.66	13.78
	3.54	0.98	3.76									

	H	H1	I	N1	M2	O	O1	O2	p3	Q	R	S	v1
IS142/IS143	7.87	15.55	10.59	7.09	8.66	M20x28	1.02	M16x26	24.21	1.97	2.76	1.18	6.97
IS152/IS153	8.86	19.09	12.80	8.27	10.24	M24x36	1.02	M20x30	28.74	2.36	3.46	1.42	8.39

	G3	D2	B2	b2	t2
IS142/IS143	14.25	1.375	2.76	0.31	1.51
IS152/IS153	16.61	1.625	3.15	0.38	1.79

3.2 WEIGHTS

The values reported in the tables are referred to the weight of the gearbox with lubricant (S140/S150 supplied without lubricant) included.

*Weight without motor.

* PS	56C	140TC	180TC	210TC	250TC	280TC	320TC	360TC	~ lb	IS	- lb
052-053	44.5	44.4	47.6	/	/	/	/	/		052-053	42.2
062-063	52.4	52.3	55.6	/	/	/	/	/		062-063	49.9
082-083	76.8	76.6	81.8	96.7	96.4	/	/	/		082-083	85.8
102-103	101	100.8	106	121	120.7	/	/	/		102-103	110
122-123	/	181.6	186.7	202.8	202.7	227.9	234.1	/		122-123	202
142	/	/	/	381.4	400	400	405.6	/		142	341
143	/	/	405.6	405.6	421.1	/	/	/		143	363
152	/	/	/	564.4	564.4	564.4	584.2	584.2		152	484
153	/	/	/	597.4	597.4	597.4	/	/		153	528

CS	TH			~ lb
	63	71	80	
052-053	9.15	9.74	12.16	~ lb
062-063	/	11.33	13.79	
082-083	/	17.04	19.64	
102-103	/	22.03	24.63	

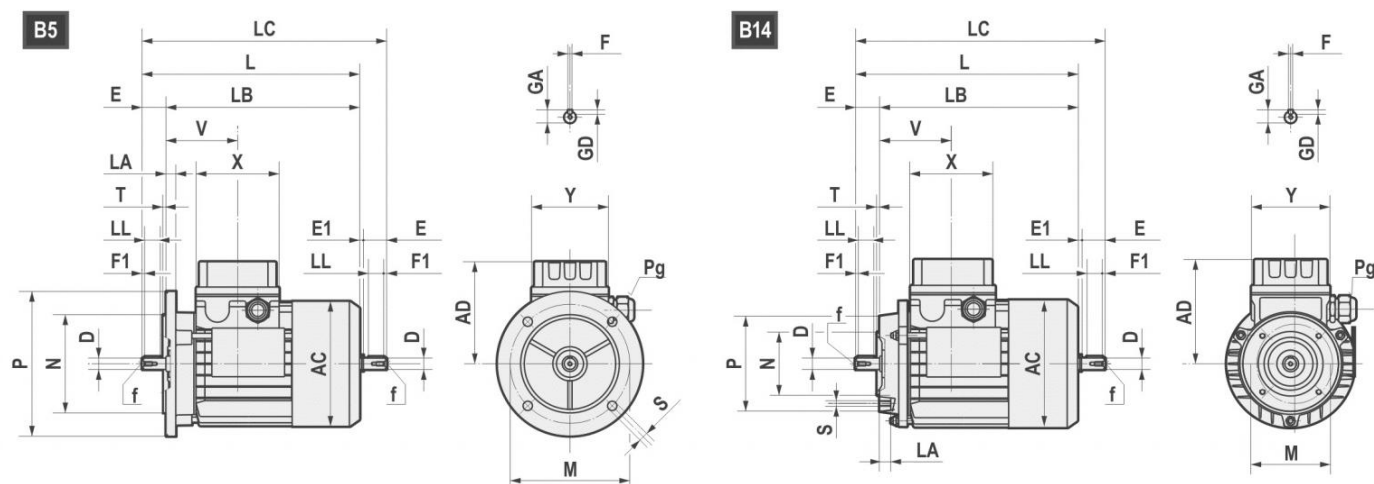
CS	TBH			~ lb
	63	71	80	
052-053	21.7	10.75	13.74	~ lb
062-063	/	12.38	15.38	
082-083	/	18.05	21.18	
102-103	/	23.04	26.17	

CS	TP							~ lb
	80	090S	090L	100	112	132S	132M	
052-053	12.88	15.79	16.51	18.96	28.21	/	/	~ lb
062-063	14.51	17.42	18.14	20.59	29.85	/	/	
082-083	20.37	22.59	23.09	25.36	34.56	43.23	45.18	
102-103	25.36	27.58	28.08	30.35	39.55	48.22	50.17	
122-123	/	43.91	44.18	46.86	55.43	64.55	65.32	

CS	TBP							~ lb
	80	090S	090L	100	112	132S	132M	
052-053	14.47	18.28	19.01	22.09	33.84	/	/	~ lb
062-063	16.1	19.91	20.64	23.72	35.47	/	/	
082-083	21.91	25.08	25.58	28.44	40.19	49.58	51.53	
102-103	26.9	30.07	30.57	33.43	45.18	54.57	56.52	
122-123	/	46.4	46.67	48.53	61.05	70.9	71.67	

3.3 ELECTRIC MOTORS

3.3.1 Electric motors



	AC	AD	L	LB	LC	X	Y	V	D	E	E1	f	F1	GA	F	GD
63	121	104	211	188	235.5	80	74	69	11 j6	23	1.5	M4x10	2.5	12.5	4	4
71	139	112	238.5	208.5	271	80	74	74.5	14 j6	30	2.5	M5x12.5	3	16	5	5
80	158	122	272.5 *296	232.5 *256	314 *337	80	74	78	19 j6	40	1.5	M6x16	5	21.5	6	6
90S	173	146	298 *331	248 *281	349.5 *381	98	98	89.5	24 j6	50	1.5	M8x19	5	27	8	7
90L	173	146	323 *356	273 *306	374.5 *408	98	98	89.5	24 j6	50	1.5	M8x19	5	27	8	7
100	191	155	368	308	431.5	98	98	97.5	28 j6	60	3.5	M10x22	7.5	31	8	7
112	211	170	382.5 *408	322.5 *348	447 *472	98	98	100	28 j6	60	3.5	M10x22	7.5	31	8	7
132S	249	195	452	372	536.5	118	118	115.5	38 k6	80	4	M12x28	10	41	10	8
132L	249	195	490	410	574.5	118	118	115.5	38 k6	80	4	M12x28	10	41	10	8
160S	249	195	520	410	/	118	118	115.5	42k6	100	/	M16x36	10	45	12	8

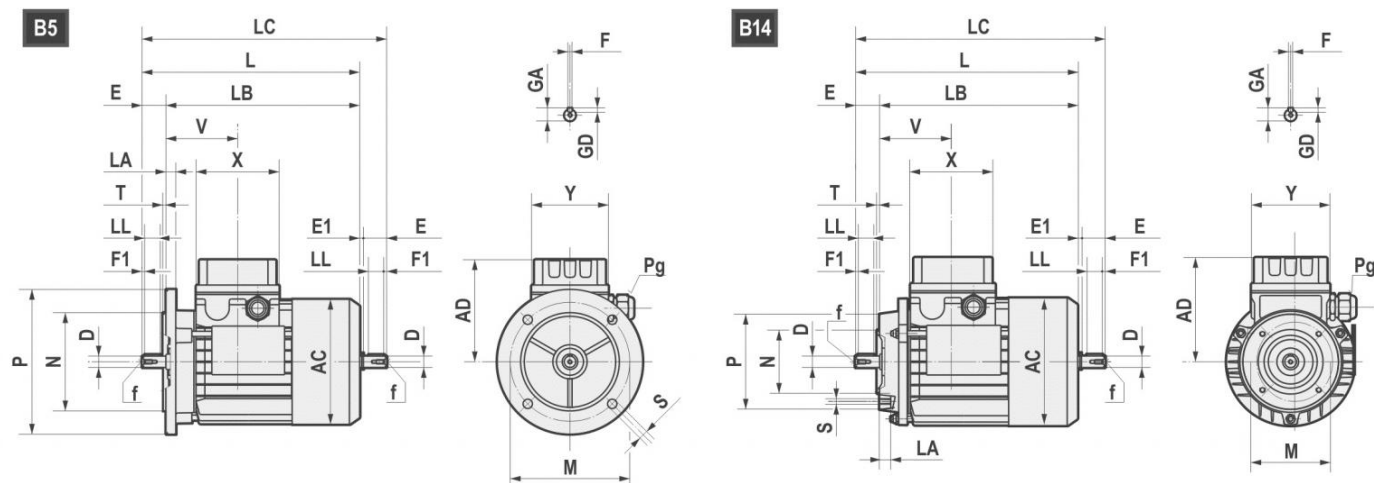
*TP80B4, TP90S4, TP90L4, TP90S6, TP112M4, TP112M6

B5	M	N	P	LA	S	T
63	115	95	140	10	9	3
71	130	110	160	10	9.5	3.5
80	165	130	200	12	11	3.5
90	165	130	200	12	11	3.5
100	215	180	250	15	14	4
112	215	180	250	14.5	14	4
132	265	230	300	20	14	3.5
160	300	250	350	13	18.5	3.5

B14	M	N	P	LA	S	T
63	75	60	90	10	M5	2.5
71	85	70	105	10.5	M6	2.5
80	100	80	120	10.5	M6	3
90	115	95	140	11.5	M8	3
100	130	110	160	15	M8	3.5
112	130	110	160	11.5	M8	3.5
132	165	130	200	20.5	M10	3.5
160	215	180	250	-	M12	4

All dimensions are in mm

3.3 ELECTRIC MOTORS



		AC	AD	L	LB	X	D	E	f	GA	F	GD	LL	Pg	
160M	2-4-6	314	251	600	490	158	42	110	M16	45	12	8	90	2-M40x1.5	1-M16x1.5
160L	2-4-6	314	251	645	535	158	42	110	M16	45	12	8	90	2-M40x1.5	1-M16x1.5
180M	2-4	355	267	680	570	158	48	110	M16	51.5	14	9	100	2-M40x1.5	1-M16x1.5
180L	4-6	355	267	720	610	158	48	110	M16	51.5	14	9	100	2-M40x1.5	1-M16x1.5
200L	2-4-6	397	300	785	675	187	55	110	M20	59	16	10	100	2-M50x1.5	1-M16x1.5
225S	4	446	325	820	680	187	60	140	M20	64	18	11	125	2-M50x1.5	1-M16x1.5
225M	2	446	325	815	705	187	55	110	M20	59	16	10	100	2-M50x1.5	1-M16x1.5
225M	4-6	446	325	845	705	187	60	140	M20	64	18	11	125	2-M50x1.5	1-M16x1.5
250M	2-4-6	485	360	910	770	238	60	140	M20	64	18	11	125	2-M63x1.5	1-M16x1.5
250M	2-4-6	485	360	910	770	238	65	140	M20	69	18	11	125	2-M63x1.5	1-M16x1.5
280S	2-4-6	547	390	970	830	238	65	140	M20	69	18	11	125	2-M63x1.5	1-M16x1.5
280S	2-4-6	547	390	970	830	238	75	140	M20	79.5	20	12	125	2-M63x1.5	1-M16x1.5
280M	2-4-6	547	390	1025	885	238	65	140	M20	69	18	11	125	2-M63x1.5	1-M16x1.5
280M	2-4-6	547	390	1025	885	238	75	140	M20	79.5	20	12	125	2-M63x1.5	1-M16x1.5

B5	M	N	P	LA	S	T
160	300	250	350	13	19	5
180	300	250	350	15	19	5
200	350	300	400	17	19	5
225	400	350	450	20	19	5
250	500	450	550	22	19	5
280	500	450	550	22	19	5

All dimensions are in mm

3.3 ELECTRIC MOTORS

3.3.2 Nominal power - [HP]

	56B		63A		63B	63C	63D	71A	71B	71C
Poles	TS	TH	TS	TH	TH	TH	TH	TH	TH	TH
2	-	0.16	-	0.25	0.33	0.5	-	0.5	0.75	-
4	0.12	-	-	0.16	0.25	-	0.33	0.33	0.5	0.75
6	-	-	0.12	-	0.16	0.25	-	0.25	0.33	0.5

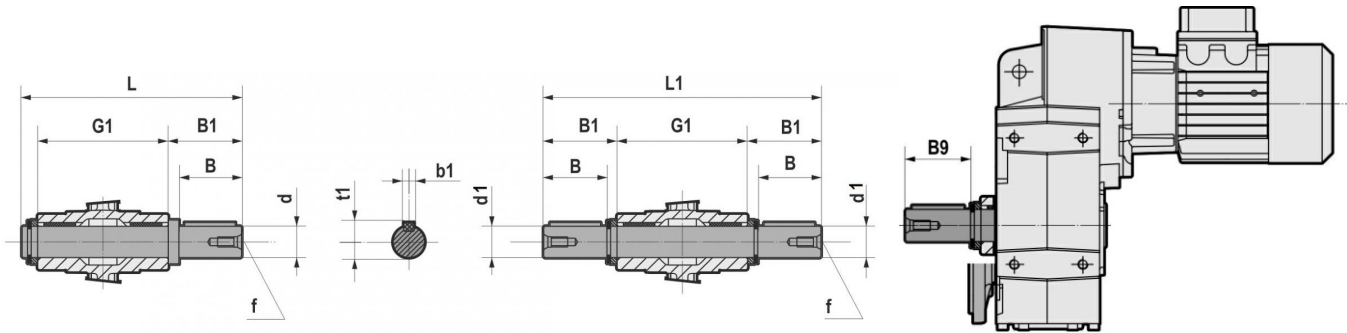
	80A		80B		90L	90L	100LR	100L	100LA
Poles	TH	TP	TH	TP	TP	TP	TP	TP	TP
2	-	1	-	1.5	2	3	-	4	-
4	0.75	-	-	1	1.5	2	-	-	3
6	0.5	-	0.75	-	1	-	1.5	2	-

	112MR	112MS	112M	132S	132MS	132M	132MA	132MB
Poles	TP	TP	TP	TP	TP	TP	TP	TP
2	-	-	5.5	7.5	-	10	-	-
4	3	4	5.5	-	7.5	10	-	-
6	-	-	3	4	-	-	5.5	7.5

	160M	160MA	160MB	160L	160LA	180M	180L
Poles							
2	-	15	20	25	-	30	-
4	-	15	-	-	20	25	30
6	10	-	-	15	-	-	20

	200L	200LA	200LB	225S	225M	250M	280S	280M
Poles								
2	-	40	50	-	-	-	-	-
4	40	-	-	50	60	74	101	121
6	-	25	30	-	-	-	-	-

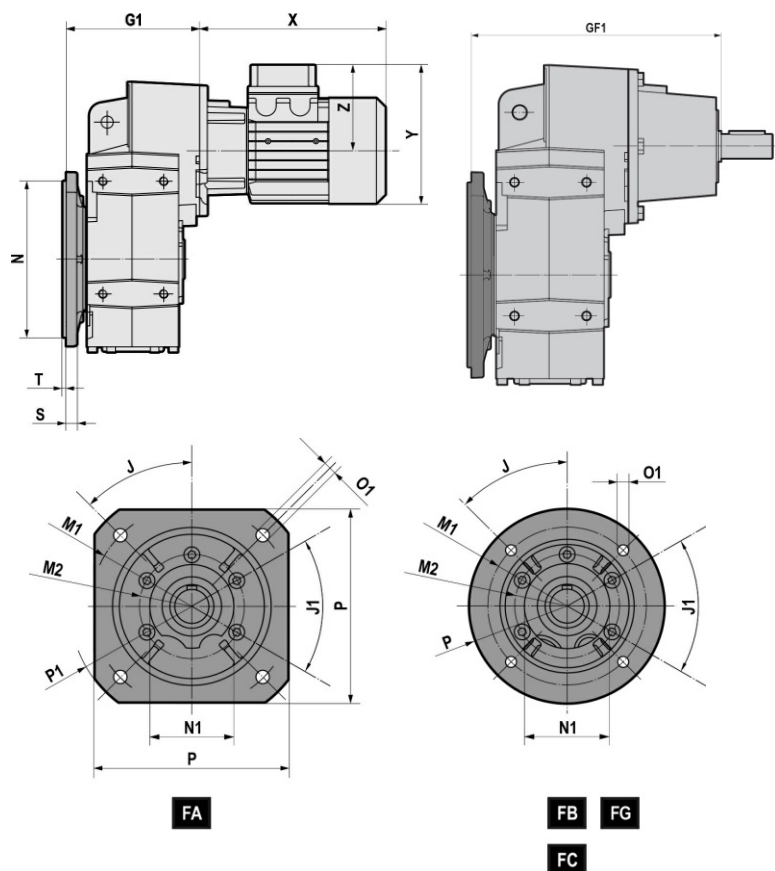
4.1 LOW SPEED SHAFTS



	d h6	B	B1	G1	L	f	b1	t1
S062/S063	1.38	2.28	2.44	5.51	8.29	M12	0.39	1.50
S082/S083	1.57	3.15	3.32	7.09	10.75	M16	0.47	1.69
S102/S103	1.97	3.94	4.13	8.27	12.80	M16	0.55	2.11
S122/S123	2.36	4.72	4.92	9.45	14.76	M20	0.71	2.52

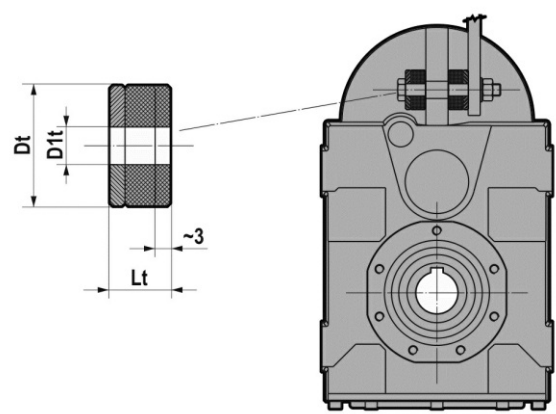
	d k5	d1 h6	B	B1	B9	L1	f	b1	t1
S142/S143	2.75	2.75	5.51	5.91	5.51	23.62	3/4-10UNC	0.79	2.93
S152/S153	2.75	2.75	5.51	5.91	5.51	23.62	3/4-10UNC	0.79	2.93
S152/S153	3.625	3.625	6.69	7.09	6.69	27.95	1-8UNC	0.875	4.01

4.2 OUTPUT FLANGE



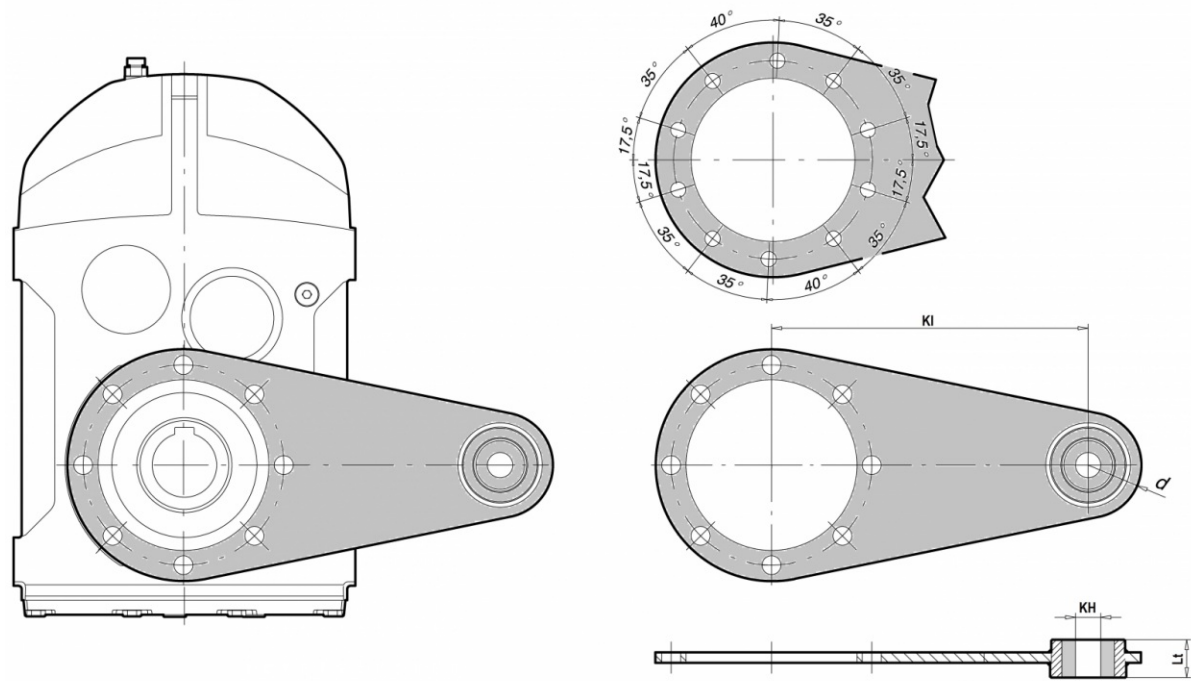
		J	J1	M1	M2	N f8	N1	O1	P	P1	S	T	G1	GF1
S052 S053	FA	45°	60°	8.46	4.13	7.09	3.54	0.55 (n.4)	7.87	9.84	0.47	0.16	6.02	9.57
	FB	45°	60°	6.50	4.13	5.12	3.54	0.43 (n.4)	7.87	/	0.47	0.14	6.02	9.57
S062 S063	FA	45°	60°	8.46	4.13	7.09	3.54	0.55 (n.4)	7.87	9.84	0.47	0.16	6.79	10.33
	FB	45°	60°	6.50	4.13	5.12	3.54	0.43 (n.4)	7.87	/	0.47	0.14	6.79	10.33
S082 S083	FA	45°	45°	10.43	5.12	9.06	4.33	0.55 (n.4)	9.84	11.81	0.59	0.16	8.94	13.39
	FB	45°	45°	8.46	5.12	7.09	4.33	0.55 (n.4)	9.84	/	0.59	0.16	8.94	13.39
	FC	45°	45°	6.50	5.12	5.12	4.33	0.43 (n.4)	7.87	/	0.59	0.14	8.94	13.39
S102 S103	FA	45°	45°	11.81	6.50	9.84	5.12	0.71 (n.4)	11.81	13.78	0.63	0.20	9.74	14.19
	FB	45°	45°	10.43	6.50	9.06	5.12	0.55 (n.4)	11.81	/	0.63	0.16	9.74	14.19
	FC	45°	45°	8.46	6.50	7.09	5.12	0.55 (n.4)	9.84	/	0.63	0.16	9.74	14.19
S122 S123	FA	45°	45°	13.78	7.28	11.81	5.91	0.71 (n.4)	13.78	15.75	0.71	0.20	11.30	16.28
	FB	45°	45°	11.81	7.28	9.84	5.91	0.71 (n.4)	13.78	/	0.71	0.20	11.30	16.28
	FC	45°	45°	10.43	7.28	9.06	5.91	0.55 (n.4)	11.81	/	0.71	0.16	11.30	16.28
S142 S143	FG	22°30'	/	15.75	/	13.78 g6	/	0.71 (n.8)	17.72	/	0.79	0.20	13.33	16.77
S152 S153	FG	22°30'	/	15.75	/	13.78 g6	/	0.71 (n.4)	17.72	/	0.79	0.20	13.33	18.94

4.3.1 Reaction bolt



	Dt	D1t	Lt
S052/S053	1.57	0.49	0.79
S062/S063	1.57	0.49	0.79
S082/S083	1.57	0.49	0.79
S102/S103	2.36	0.83	1.18
S122/S123	2.36	0.83	1.18
S142/S143	2.36	0.98	1.53
S152/S153	2.36	0.98	1.40

4.3.2 Torque arm - S 142...153



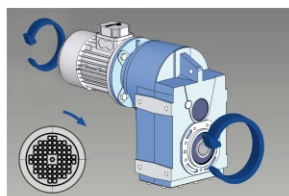
	KI	KH ^{+/-0.008}	d	Lt
S142/S143	13.78	0.98	1.77	1.18
S152/S153	17.72	0.98	1.97	1.18

4.4 BACKSTOP DEVICE

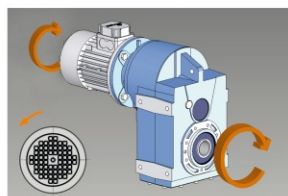
The gear reducer can be supplied with backstop device on input shaft. Backstop device allows output shaft rotation in only one sense of direction; according to the size, it is available in the input flange or in the motor with the same dimensions. It is important to specify the required sense of direction on the order. The backstop device is not available for mounting position V5 with motor size IEC 100...225.

SENSE OF DIRECTION AVAILABLE

S... 2/C-D-L

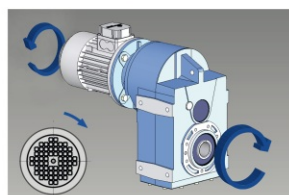


CLOCKWISE SENSE OF DIRECTION
REFERRED TO HIGH SPEED SHAFT

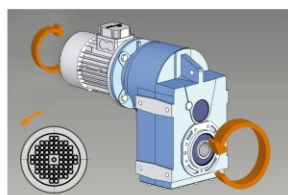


COUNTER CLOCKWISE SENSE OF DIRECTION
REFERRED TO HIGH SPEED SHAFT

S... 3/C-D-L



CLOCKWISE SENSE OF DIRECTION
REFERRED TO HIGH SPEED SHAFT

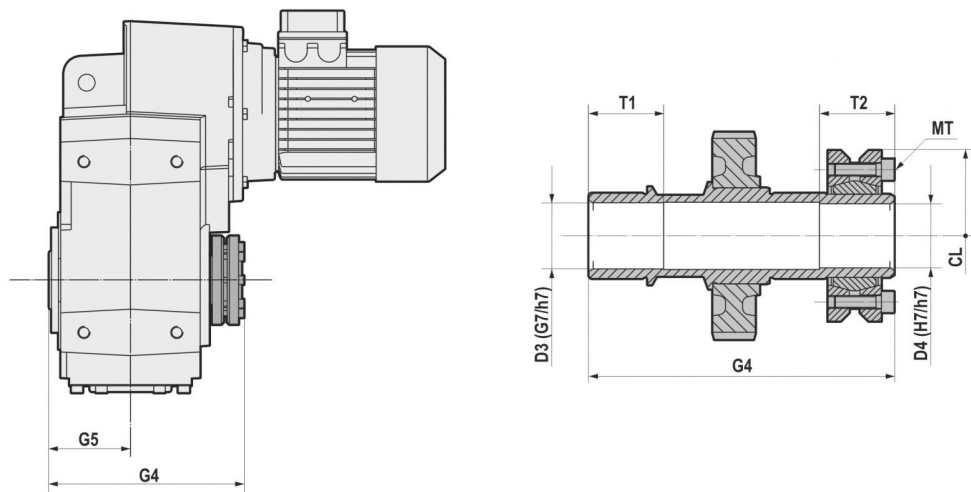


COUNTER CLOCKWISE SENSE OF DIRECTION
REFERRED TO HIGH SPEED SHAFT

	063	071	080	090	100-112	132	160	180	200	225
	140x11	160x14	200x19	200x24	250x28	300x38	350x42	350x48	400x55	450x60
S052		B5	B5	B5	B5					
S053	B5	B5	B5	B5	B5					
S062		B5	B5	B5	B5					
S063		B5	B5	B5	B5					
S082			B5	B5	B5	B5				
S083		B5	B5	B5	B5					
S102			B5	B5	B5	B5	B5			
S103		B5	B5	B5	B5					
S122			B5	B5	B5	B5	B5	B5	B5	
S123			B5	B5	B5	B5				
S142						B5	B5	B5	B5	
S143					B5	B5	B5			
S152							B5	B5	B5	B5
S153						B5	B5	B5		

Dimensions are only in mm.

Clean and degrease the surfaces of the shaft to be fitted to. Comply with the indicated tightening torque of screws (M_T).
The shrink disc is designed only to transmit the output torque.
In case of radial and/or axial loads or V5-V6 mounting positions, please contact the technical support.



	D3	D4	G4	G5	T1	T2	CL	M_T 12.9 [Nm]
S052/S053	1.22	1.18	5.98	2.36	1.38	1.38	2.91	15
S062/S063	1.42	1.38	6.81	2.76	1.57	1.38	3.15	15
S082/S083	1.61	1.57	8.54	3.54	1.97	1.57	3.94	15
S102/S103	2.01	1.97	9.76	4.13	2.17	1.57	4.53	15
S122/S123	2.40	2.36	11.10	4.72	2.36	1.97	5.71	40

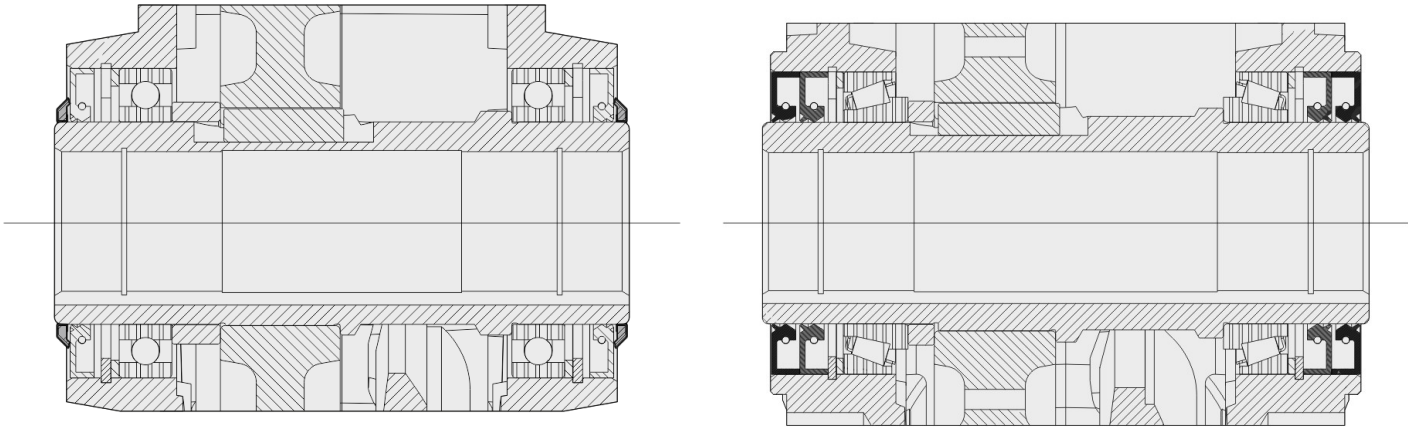
	D3 - D4 (H7/h6)	G4	CL	M_T 12.9 [Nm]
S142-S143	2.95	13.58	6.10	70
S152-S153	3.74	15.94	7.87	103

4.6 REINFORCED OIL SEALS FOR OUTPUT SHAFT

TECHNICAL CATALOGUE

The reinforced seal can be done depending on the gearbox size by means of two oil seals or through the standard oil seal with VRM ring. The difference of the two solutions is explained on the drawings.

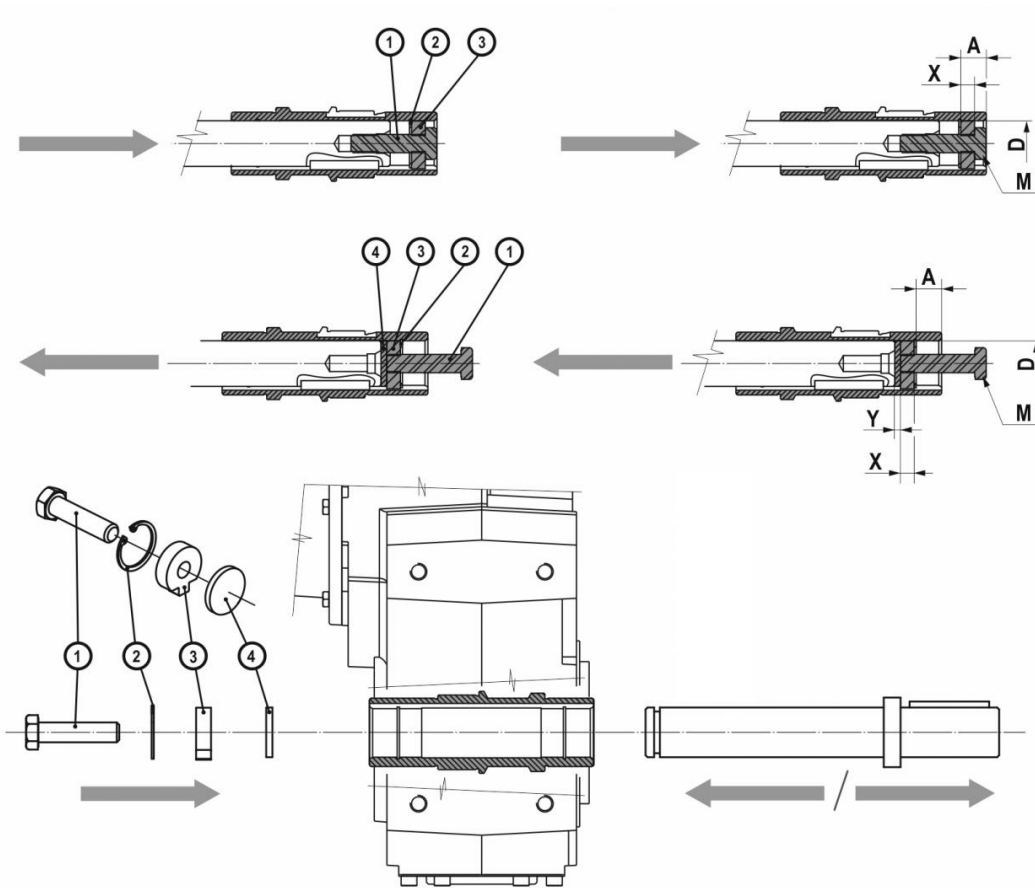
On request the gear reducer can be supplied with fluoroelastomer FPM (FKM) seals.



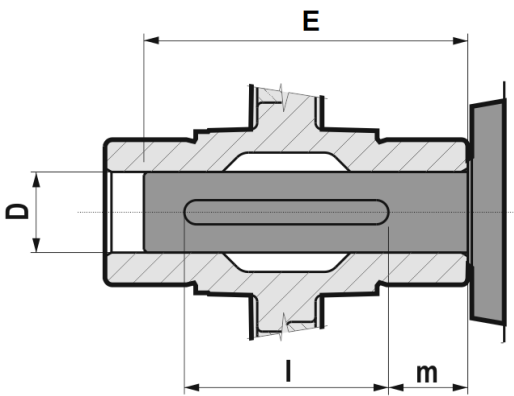
	Double oil seal	VRM ring
S050 2/3		x
S060 2/3		x
S080 2/3		x
S100 2/3		x
S125 2/3		x
S140 2/3		x
S150 2/3	x	

Mounting/dismounting kit for hollow shaft gear reducers with keyway that includes:

- 1. Retaining bolt
- 2. Circlip
- 3. Fixed nut
- 4. Forcing washer



	D	A	X	Y	M
S052/S053	1.18	0.54	0.39	0.2	M10x35
S062/S063	1.38	0.47	0.47	0.2	M12x45
S082/S083	1.57	0.88	0.47	0.2	M16x50
	1.77				
S102/S103	1.97	0.98	0.47	0.2	M16x50
S122/S123	2.36	1.10	0.63	0.2	M20x70



	D H7/h6	E*	l*	m*
S052/S053	1.18	3.58	2.36	0.49
S062/S063	1.38	4.25	3.15	0.49
S082/S083	1.57	5.51	3.94	0.69
	1.77			
S102/S103	1.97	6.5	4.72	0.79
S122/S123	2.36	7.28	5.51	0.89

(*) Suggested values.

5.1 S GEARED MOTORS

0.16 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
202.9	31.2	48	8.63	1505	904	904	-	-	PS052	56C
157.1	27.0	62	11.14	1682	982	982	-	-	PS052	56C
145.8	26.4	67	12.00	1770	1006	1006	-	-	PS052	56C
128.1	24.4	76	13.66	1859	1049	1049	-	-	PS052	56C
114.6	24.9	85	15.27	2124	1088	1088	-	-	PS052	56C
107.5	23.3	91	16.29	2124	1110	1110	-	-	PS052	56C
93.9	20.4	104	18.63	2124	1160	1160	-	-	PS052	56C
88.7	19.3	110	19.73	2124	1181	1181	-	-	PS052	56C
83.2	19.6	118	21.04	2301	1206	1206	-	-	PS052	56C
81.3	19.1	120	21.53	2301	1215	1215	-	-	PS052	56C
72.7	17.1	134	24.07	2301	1259	1259	-	-	PS052	56C
69.4	18.2	141	25.20	2567	1277	1277	-	-	PS052	56C
67.9	17.8	144	25.79	2567	1287	1287	-	-	PS052	56C
62.9	16.5	155	27.81	2567	1318	1318	-	-	PS052	56C
58.3	15.3	168	30.00	2567	1349	1349	-	-	PS052	56C/56C
53.8	14.6	182	32.55	2655	1349	1349	-	-	PS052	56C
53.0	14.4	184	33.00	2655	1349	1349	-	-	PS052	56C
51.3	13.9	190	34.09	2655	1349	1349	-	-	PS052	56C
47.9	14.3	204	36.55	2921	1349	1349	-	-	PS052	56C
45.2	13.5	217	38.75	2921	1349	1349	-	-	PS052	56C
43.9	13.9	223	39.90	3098	1349	1349	-	-	PS052	56C
41.1	13.0	238	42.63	3098	1349	1349	-	-	PS052	56C
38.0	12.1	257	46.00	3098	1349	1349	-	-	PS052	56C
37.1	11.7	264	47.20	3098	1349	1349	-	-	PS052	56C
33.5	10.6	292	52.25	3098	1349	1349	-	-	PS052	56C
30.2	9.6	323	57.86	3098	1349	1349	-	-	PS052	56C
29.5	9.3	332	59.42	3098	1349	1349	-	-	PS052	56C
24.0	7.6	407	72.83	3098	1349	1349	-	-	PS052	56C
47.9	15.7	198	36.50	3098	1349	1349	CS053	63A4	PS053	56C
37.1	12.1	255	47.14	3098	1349	1349	CS053	63A4	PS053	56C
30.3	9.9	313	57.79	3098	1349	1349	CS053	63A4	PS053	56C
27.5	9.0	345	63.74	3098	1349	1349	CS053	63A4	PS053	56C
23.6	7.7	402	74.20	3098	1349	1349	CS053	63A4	PS053	56C
22.4	7.3	423	78.14	3098	1349	1349	CS053	63A4	PS053	56C
18.3	6.0	519	95.84	3098	1349	1349	CS053	63A4	PS053	56C
14.9	4.9	636	117.48	3098	1349	1349	CS053	63A4	PS053	56C
12.7	4.2	745	137.45	3098	1349	1349	CS053	63A4	PS053	56C
9.9	3.2	962	177.55	3098	1349	1349	CS053	63A4	PS053	56C

0.16 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
8.8	2.9	1075	198.45	3098	1349	1349	CS053	63A4	PS053	56C
8.0	2.6	1179	217.64	3098	1349	1349	CS053	63A4	PS053	56C
6.8	2.2	1388	256.33	3098	1349	1349	CS053	63A4	PS053	56C
5.6	1.8	1702	314.21	3098	1349	1349	CS053	63A4	PS053	56C
218.8	65.3	45	8.00	2921	1521	608	-	-	PS062	56C
196.2	58.6	50	8.92	2921	1576	630	-	-	PS062	56C
183.3	59.7	53	9.55	3186	1611	645	-	-	PS062	56C
164.4	53.6	59	10.65	3186	1670	668	-	-	PS062	56C
149.5	52.8	65	11.71	3452	1722	689	-	-	PS062	56C
134.0	51.0	73	13.06	3717	1785	714	-	-	PS062	56C
131.0	49.8	75	13.36	3717	1798	719	-	-	PS062	56C
109.8	44.7	89	15.94	3983	1904	762	-	-	PS062	56C
108.3	44.1	90	16.16	3983	1913	765	-	-	PS062	56C
90.7	37.0	108	19.29	3983	2026	810	-	-	PS062	56C
89.5	37.3	109	19.55	4071	2035	814	-	-	PS062	56C
75.5	32.1	130	23.18	4160	2150	860	-	-	PS062	56C
73.7	31.3	133	23.75	4160	2167	867	-	-	PS062	56C
69.6	30.2	140	25.14	4248	2207	883	-	-	PS062	56C
63.3	27.5	155	27.66	4248	2248	899	-	-	PS062	56C
51.6	25.2	190	33.93	4779	2248	899	-	-	PS062	56C
47.9	26.0	204	36.57	5310	2248	899	-	-	PS062	56C
44.4	24.1	220	39.38	5310	2248	899	-	-	PS062	56C
40.1	21.8	244	43.64	5310	2248	899	-	-	PS062	56C
38.0	20.6	258	46.10	5310	2248	899	-	-	PS062	56C
36.2	19.7	270	48.30	5310	2248	899	-	-	PS062	56C
32.7	17.8	299	53.53	5310	2248	899	-	-	PS062	56C
31.8	17.3	307	55.00	5310	2248	899	-	-	PS062	56C
25.9	14.1	377	67.47	5310	2248	899	-	-	PS062	56C
52.1	28.9	184	33.57	5310	2248	899	-	-	PS063	56C
46.3	25.7	207	37.77	5310	2248	899	-	-	PS063	56C
43.7	24.2	219	40.05	5310	2248	899	-	-	PS063	56C/56C
35.6	19.8	269	49.13	5310	2248	899	-	-	PS063	56C
31.7	17.6	302	55.29	5310	2248	899	-	-	PS063	56C
29.8	16.5	321	58.72	5310	2248	899	-	-	PS063	56C
26.6	14.7	360	65.85	5310	2248	899	-	-	PS063	56C
25.6	14.2	373	68.25	5310	2248	899	-	-	PS063	56C
23.8	13.2	403	73.63	5310	2248	899	-	-	PS063	56C
21.5	11.9	445	81.43	5310	2248	899	-	-	PS063	56C

5.1 S GEARED MOTORS

0.16 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
17.5	9.7	546	99.89	5310	2248	899	-	-	PS063	56C
13.8	7.7	692	126.43	5310	2248	899	-	-	PS063	56C
11.6	6.4	825	150.85	5310	2248	899	-	-	PS063	56C
9.6	5.3	999	182.53	5310	2248	899	-	-	PS063	56C
9.5	5.2	1012	185.05	5310	2248	899	-	-	PS063	56C
8.0	4.5	1191	217.79	5310	2248	899	-	-	PS063	56C
6.6	3.6	1462	267.16	5310	2248	899	-	-	PS063	56C
238.5	118.7	41	7.34	4868	2886	825	-	-	PS082	56C
217.1	117.9	45	8.06	5310	2977	851	-	-	PS082	56C
176.0	103.6	56	9.94	5753	3190	911	-	-	PS082	56C
150.8	95.5	65	11.61	6196	3356	959	-	-	PS082	56C
137.3	93.2	71	12.75	6638	3462	989	-	-	PS082	56C
124.6	85.7	78	14.04	6727	3574	1021	-	-	PS082	56C
113.4	79.1	86	15.43	6815	3686	1053	-	-	PS082	56C
111.3	77.6	88	15.73	6815	3709	1060	-	-	PS082	56C
101.2	70.5	97	17.29	6815	3827	1093	-	-	PS082	56C
92.0	64.1	106	19.03	6815	3949	1128	-	-	PS082	56C
86.9	60.6	113	20.14	6815	4023	1149	-	-	PS082	56C
79.1	57.3	124	22.13	7081	4047	1185	-	-	PS082	56C/56C
72.9	52.8	134	24.00	7081	4047	1218	-	-	PS082	56C
67.2	48.7	146	26.05	7081	4047	1251	-	-	PS082	56C
64.1	52.2	152	27.29	7966	4047	1270	-	-	PS082	56C
61.0	49.7	160	28.67	7966	4047	1291	-	-	PS082	56C
59.1	48.2	165	29.60	7966	4047	1304	-	-	PS082	56C
55.1	49.9	178	31.78	8851	4047	1335	-	-	PS082	56C
50.1	45.4	195	34.91	8851	4047	1377	-	-	PS082	56C/56C
49.3	44.6	198	35.50	8851	4047	1384	-	-	PS082	56C
40.6	36.8	241	43.05	8851	4047	1475	-	-	PS082	56C
34.8	31.5	281	50.25	8851	4047	1551	-	-	PS082	56C/56C
32.2	29.2	303	54.27	8851	4047	1591	-	-	PS082	56C
28.2	25.6	346	61.98	8851	4047	1619	-	-	PS082	56C
25.9	24.0	369	67.52	8851	4047	1619	-	-	PS083	56C
23.6	21.8	406	74.18	8851	4047	1619	-	-	PS083	56C/56C
21.4	19.8	447	81.71	8851	4047	1619	-	-	PS083	56C
19.1	17.7	501	91.49	8851	4047	1619	-	-	PS083	56C
17.4	16.1	550	100.62	8851	4047	1619	-	-	PS083	56C
14.9	13.8	641	117.17	8851	4047	1619	-	-	PS083	56C
13.6	12.6	704	128.73	8851	4047	1619	-	-	PS083	56C/56C

0.16 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
12.8	11.9	746	136.34	8851	4047	1619	-	-	PS083	56C
11.0	10.2	869	158.76	8851	4047	1619	-	-	PS083	56C
9.5	8.8	1011	184.88	8851	4047	1619	-	-	PS083	56C
8.6	8.0	1111	203.11	8851	4047	1619	-	-	PS083	56C/56C
8.5	7.9	1123	205.34	8851	4047	1619	-	-	PS083	56C
7.7	7.2	1237	226.04	8851	4047	1619	-	-	PS083	56C
7.0	6.5	1370	250.50	8851	4047	1619	-	-	PS083	56C
6.6	6.1	1456	266.13	8851	4047	1619	-	-	PS083	56C
6.0	5.5	1599	292.36	8851	4047	1619	-	-	PS083	56C/56C
5.5	5.1	1727	315.73	8851	4047	1619	-	-	PS083	56C
4.9	4.5	1973	360.58	8851	4047	1619	-	-	PS083	56C
92.1	116.7	106	19.00	12391	4807	1373	-	-	PS102	56C
84.0	106.5	116	20.83	12391	4946	1415	-	-	PS102	56C
72.1	97.9	136	24.28	13276	4946	1489	-	-	PS102	56C
66.5	90.2	147	26.33	13276	4946	1529	-	-	PS102	56C
58.6	79.6	167	29.87	13276	4946	1594	-	-	PS102	56C
54.0	73.3	181	32.40	13276	4946	1637	-	-	PS102	56C
45.7	62.0	214	38.30	13276	4946	1729	-	-	PS102	56C
41.2	52.2	238	42.53	12391	4946	1790	-	-	PS102	56C
39.8	46.8	246	44.00	11506	4946	1810	-	-	PS102	56C
37.1	53.8	263	47.13	14161	4946	1851	-	-	PS102	56C
31.7	37.4	308	55.14	11506	4946	1949	-	-	PS102	56C
29.5	42.7	332	59.40	14161	4946	1997	-	-	PS102	56C
25.8	37.4	379	67.84	14161	4946	2023	-	-	PS102	56C
21.5	31.8	445	81.39	14161	4946	2023	-	-	PS103	56C
19.5	28.8	491	89.77	14161	4946	2023	-	-	PS103	56C
17.5	25.8	548	100.15	14161	4946	2023	-	-	PS103	56C
15.8	23.4	605	110.55	14161	4946	2023	-	-	PS103	56C
14.4	21.3	664	121.29	14161	4946	2023	-	-	PS103	56C
12.4	18.3	773	141.24	14161	4946	2023	-	-	PS103	56C
10.1	14.9	951	173.78	14161	4946	2023	-	-	PS103	56C
9.3	13.7	1031	188.51	14161	4946	2023	-	-	PS103	56C
7.9	11.6	1219	222.85	14161	4946	2023	-	-	PS103	56C
7.8	11.5	1230	224.76	14161	4946	2023	-	-	PS103	56C
6.4	9.4	1500	274.20	14161	4946	2023	-	-	PS103	56C
6.2	9.2	1537	280.89	14161	4946	2023	-	-	PS103	56C
5.5	8.1	1755	320.79	14161	4946	2023	-	-	PS103	56C
5.1	7.5	1891	345.60	14161	4946	2023	-	-	PS103	56C

5.1 S GEARED MOTORS

0.16 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
4.4	6.6	2159	394.69	14161	4946	2023	-	-	PS103	56C

0.25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
202.9	20.0	75	8.63	1505	900	900	-	-	PS052	56C
157.1	17.3	97	11.14	1682	977	977	-	-	PS052	56C
145.8	16.9	105	12.00	1770	1001	1001	-	-	PS052	56C
128.1	15.6	119	13.66	1859	1043	1043	-	-	PS052	56C
114.6	15.9	133	15.27	2124	1081	1081	-	-	PS052	56C
107.5	14.9	142	16.29	2124	1103	1103	-	-	PS052	56C
93.9	13.1	163	18.63	2124	1151	1151	-	-	PS052	56C
88.7	12.3	172	19.73	2124	1172	1172	-	-	PS052	56C
83.2	12.5	184	21.04	2301	1196	1196	-	-	PS052	56C
81.3	12.2	188	21.53	2301	1205	1205	-	-	PS052	56C
72.7	11.0	210	24.07	2301	1247	1247	-	-	PS052	56C
69.4	11.7	220	25.20	2567	1266	1266	-	-	PS052	56C
67.9	11.4	225	25.79	2567	1275	1275	-	-	PS052	56C
62.9	10.6	243	27.81	2567	1305	1305	-	-	PS052	56C
58.3	9.8	262	30.00	2567	1336	1336	-	-	PS052	56C/56C
53.8	9.3	284	32.55	2655	1349	1349	-	-	PS052	56C
53.0	9.2	288	33.00	2655	1349	1349	-	-	PS052	56C
51.3	8.9	298	34.09	2655	1349	1349	-	-	PS052	56C
47.9	9.2	319	36.55	2921	1349	1349	-	-	PS052	56C
45.2	8.6	338	38.75	2921	1349	1349	-	-	PS052	56C
43.9	8.9	348	39.90	3098	1349	1349	-	-	PS052	56C
41.1	8.3	372	42.63	3098	1349	1349	-	-	PS052	56C
38.0	7.7	402	46.00	3098	1349	1349	-	-	PS052	56C
37.1	7.5	412	47.20	3098	1349	1349	-	-	PS052	56C
33.5	6.8	456	52.25	3098	1349	1349	-	-	PS052	56C
30.2	6.1	505	57.86	3098	1349	1349	-	-	PS052	56C
29.5	6.0	519	59.42	3098	1349	1349	-	-	PS052	56C
24.0	4.9	636	72.83	3098	1349	1349	-	-	PS052	56C
47.9	10.0	309	36.50	3098	1349	1349	CS053	63B4	PS053	56C
37.1	7.8	399	47.14	3098	1349	1349	CS053	63B4	PS053	56C
30.3	6.3	489	57.79	3098	1349	1349	CS053	63B4	PS053	56C
27.5	5.7	539	63.74	3098	1349	1349	CS053	63B4	PS053	56C
23.6	4.9	628	74.20	3098	1349	1349	CS053	63B4	PS053	56C

0.25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
22.4	4.7	661	78.14	3098	1349	1349	CS053	63B4	PS053	56C
18.3	3.8	811	95.84	3098	1349	1349	CS053	63B4	PS053	56C
14.9	3.1	994	117.48	3098	1349	1349	CS053	63B4	PS053	56C
12.7	2.7	1163	137.45	3098	1349	1349	CS053	63B4	PS053	56C
9.9	2.1	1503	177.55	3098	1349	1349	CS053	63B4	PS053	56C
8.8	1.8	1680	198.45	3098	1349	1349	CS053	63B4	PS053	56C
8.0	1.7	1842	217.64	3098	1349	1349	CS053	63B4	PS053	56C
6.8	1.4	2169	256.33	3098	1349	1349	CS053	63B4	PS053	56C
5.6	1.2	2659	314.21	3098	1349	1349	CS053	63B4	PS053	56C
218.8	41.8	70	8.00	2921	1517	607	-	-	PS062	56C
196.2	37.5	78	8.92	2921	1572	629	-	-	PS062	56C
183.3	38.2	83	9.55	3186	1606	643	-	-	PS062	56C
164.4	34.3	93	10.65	3186	1664	666	-	-	PS062	56C
149.5	33.8	102	11.71	3452	1716	687	-	-	PS062	56C
134.0	32.6	114	13.06	3717	1778	711	-	-	PS062	56C
131.0	31.9	117	13.36	3717	1791	716	-	-	PS062	56C
109.8	28.6	139	15.94	3983	1896	758	-	-	PS062	56C
108.3	28.2	141	16.16	3983	1905	762	-	-	PS062	56C
90.7	23.7	168	19.29	3983	2016	806	-	-	PS062	56C
89.5	23.9	171	19.55	4071	2025	810	-	-	PS062	56C
75.5	20.6	202	23.18	4160	2138	855	-	-	PS062	56C
73.7	20.1	207	23.75	4160	2155	862	-	-	PS062	56C
69.6	19.4	219	25.14	4248	2195	878	-	-	PS062	56C
63.3	17.6	241	27.66	4248	2248	899	-	-	PS062	56C
51.6	16.1	296	33.93	4779	2248	899	-	-	PS062	56C
47.9	16.6	319	36.57	5310	2248	899	-	-	PS062	56C
44.4	15.4	344	39.38	5310	2248	899	-	-	PS062	56C
40.1	13.9	381	43.64	5310	2248	899	-	-	PS062	56C
38.0	13.2	402	46.10	5310	2248	899	-	-	PS062	56C
36.2	12.6	422	48.30	5310	2248	899	-	-	PS062	56C
32.7	11.4	467	53.53	5310	2248	899	-	-	PS062	56C
31.8	11.1	480	55.00	5310	2248	899	-	-	PS062	56C
25.9	9.0	589	67.47	5310	2248	899	-	-	PS062	56C
52.1	18.5	287	33.57	5310	2248	899	-	-	PS063	56C
46.3	16.4	323	37.77	5310	2248	899	-	-	PS063	56C
43.7	15.5	342	40.05	5310	2248	899	-	-	PS063	56C/56C
35.6	12.6	420	49.13	5310	2248	899	-	-	PS063	56C
31.7	11.2	473	55.29	5310	2248	899	-	-	PS063	56C

5.1 S GEARED MOTORS

0.25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
29.8	10.6	502	58.72	5310	2248	899	-	-	PS063	56C
26.6	9.4	563	65.85	5310	2248	899	-	-	PS063	56C
25.6	9.1	583	68.25	5310	2248	899	-	-	PS063	56C
23.8	8.4	629	73.63	5310	2248	899	-	-	PS063	56C
21.5	7.6	696	81.43	5310	2248	899	-	-	PS063	56C
17.5	6.2	854	99.89	5310	2248	899	-	-	PS063	56C
13.8	4.9	1081	126.43	5310	2248	899	-	-	PS063	56C
11.6	4.1	1289	150.85	5310	2248	899	-	-	PS063	56C
9.6	3.4	1560	182.53	5310	2248	899	-	-	PS063	56C
9.5	3.4	1582	185.05	5310	2248	899	-	-	PS063	56C
8.0	2.9	1862	217.79	5310	2248	899	-	-	PS063	56C
6.6	2.3	2284	267.16	5310	2248	899	-	-	PS063	56C
238.5	76.0	64	7.34	4868	2885	824	-	-	PS082	56C
217.1	75.4	70	8.06	5310	2975	850	-	-	PS082	56C
176.0	66.3	87	9.94	5753	3187	911	-	-	PS082	56C
150.8	61.2	101	11.61	6196	3353	958	-	-	PS082	56C
137.3	59.6	111	12.75	6638	3458	988	-	-	PS082	56C
124.6	54.9	123	14.04	6727	3570	1020	-	-	PS082	56C
113.4	50.6	135	15.43	6815	3682	1052	-	-	PS082	56C
111.3	49.6	137	15.73	6815	3705	1059	-	-	PS082	56C
101.2	45.1	151	17.29	6815	3822	1092	-	-	PS082	56C
92.0	41.0	166	19.03	6815	3944	1127	-	-	PS082	56C
86.9	38.8	176	20.14	6815	4018	1148	-	-	PS082	56C
79.1	36.7	193	22.13	7081	4047	1184	-	-	PS082	56C/56C
72.9	33.8	210	24.00	7081	4047	1216	-	-	PS082	56C
67.2	31.1	227	26.05	7081	4047	1249	-	-	PS082	56C
64.1	33.4	238	27.29	7966	4047	1268	-	-	PS082	56C
61.0	31.8	250	28.67	7966	4047	1289	-	-	PS082	56C
59.1	30.8	258	29.60	7966	4047	1302	-	-	PS082	56C
55.1	31.9	277	31.78	8851	4047	1333	-	-	PS082	56C
50.1	29.0	305	34.91	8851	4047	1374	-	-	PS082	56C/56C
49.3	28.6	310	35.50	8851	4047	1382	-	-	PS082	56C
40.6	23.5	376	43.05	8851	4047	1471	-	-	PS082	56C
34.8	20.2	439	50.25	8851	4047	1547	-	-	PS082	56C/56C
32.2	18.7	474	54.27	8851	4047	1587	-	-	PS082	56C
28.2	16.4	541	61.98	8851	4047	1619	-	-	PS082	56C
25.9	15.3	577	67.52	8851	4047	1619	-	-	PS083	56C
23.6	14.0	634	74.18	8851	4047	1619	-	-	PS083	56C/56C

0.25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
21.4	12.7	698	81.71	8851	4047	1619	-	-	PS083	56C
19.1	11.3	782	91.49	8851	4047	1619	-	-	PS083	56C
17.4	10.3	860	100.62	8851	4047	1619	-	-	PS083	56C
14.9	8.8	1002	117.17	8851	4047	1619	-	-	PS083	56C
13.6	8.0	1100	128.73	8851	4047	1619	-	-	PS083	56C/56C
12.8	7.6	1165	136.34	8851	4047	1619	-	-	PS083	56C
11.0	6.5	1357	158.76	8851	4047	1619	-	-	PS083	56C
9.5	5.6	1580	184.88	8851	4047	1619	-	-	PS083	56C
8.6	5.1	1736	203.11	8851	4047	1619	-	-	PS083	56C/56C
8.5	5.0	1755	205.34	8851	4047	1619	-	-	PS083	56C
7.7	4.6	1932	226.04	8851	4047	1619	-	-	PS083	56C
7.0	4.1	2141	250.50	8851	4047	1619	-	-	PS083	56C
6.6	3.9	2275	266.13	8851	4047	1619	-	-	PS083	56C
6.0	3.5	2499	292.36	8851	4047	1619	-	-	PS083	56C/56C
5.5	3.3	2699	315.73	8851	4047	1619	-	-	PS083	56C
4.9	2.9	3082	360.58	8851	4047	1619	-	-	PS083	56C
92.1	74.7	166	19.00	12391	4803	1372	-	-	PS102	56C
84.0	68.1	182	20.83	12391	4946	1414	-	-	PS102	56C
72.1	62.6	212	24.28	13276	4946	1487	-	-	PS102	56C
66.5	57.8	230	26.33	13276	4946	1527	-	-	PS102	56C
58.6	50.9	261	29.87	13276	4946	1592	-	-	PS102	56C
54.0	46.9	283	32.40	13276	4946	1635	-	-	PS102	56C
45.7	39.7	334	38.30	13276	4946	1727	-	-	PS102	56C
41.2	33.4	371	42.53	12391	4946	1787	-	-	PS102	56C
39.8	30.0	384	44.00	11506	4946	1807	-	-	PS102	56C
37.1	34.4	411	47.13	14161	4946	1848	-	-	PS102	56C
31.7	23.9	481	55.14	11506	4946	1946	-	-	PS102	56C
29.5	27.3	519	59.40	14161	4946	1994	-	-	PS102	56C
25.8	23.9	592	67.84	14161	4946	2023	-	-	PS102	56C
21.5	20.4	696	81.39	14161	4946	2023	-	-	PS103	56C
19.5	18.5	767	89.77	14161	4946	2023	-	-	PS103	56C
17.5	16.5	856	100.15	14161	4946	2023	-	-	PS103	56C
15.8	15.0	945	110.55	14161	4946	2023	-	-	PS103	56C
14.4	13.7	1037	121.29	14161	4946	2023	-	-	PS103	56C
12.4	11.7	1207	141.24	14161	4946	2023	-	-	PS103	56C
10.1	9.5	1485	173.78	14161	4946	2023	-	-	PS103	56C
9.3	8.8	1611	188.51	14161	4946	2023	-	-	PS103	56C
7.9	7.4	1905	222.85	14161	4946	2023	-	-	PS103	56C

5.1 S GEARED MOTORS

0.25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
7.8	7.4	1921	224.76	14161	4946	2023	-	-	PS103	56C
6.4	6.0	2344	274.20	14161	4946	2023	-	-	PS103	56C
6.2	5.9	2401	280.89	14161	4946	2023	-	-	PS103	56C
5.5	5.2	2742	320.79	14161	4946	2023	-	-	PS103	56C
5.1	4.8	2954	345.60	14161	4946	2023	-	-	PS103	56C
4.4	4.2	3374	394.69	14161	4946	2023	-	-	PS103	56C

0.33 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
24.0	3.7	831	72.83	3098	1349	1349	CS052	63D4/71A4	PS052	56C
23.6	3.7	829	74.20	3098	1349	1349	CS053	63D4/71A4	PS053	56C
22.4	3.5	873	78.14	3098	1349	1349	CS053	63D4/71A4	PS053	56C
18.3	2.9	1071	95.84	3098	1349	1349	CS053	63D4/71A4	PS053	56C
14.9	2.4	1312	117.48	3098	1349	1349	CS053	63D4/71A4	PS053	56C
12.7	2.0	1536	137.45	3098	1349	1349	CS053	63D4/71A4	PS053	56C
9.9	1.6	1983	177.55	3098	1349	1349	CS053	63D4/71A4	PS053	56C
8.8	1.4	2217	198.45	3098	1349	1349	CS053	63D4/71A4	PS053	56C
8.0	1.3	2431	217.64	3098	1349	1349	CS053	63D4/71A4	PS053	56C
6.8	1.1	2864	256.33	3098	1349	1349	CS053	63D4/71A4	PS053	56C
13.8	3.8	1412	126.43	5310	2248	899	CS063	63D4/71A4	PS063	56C
11.6	3.2	1685	150.85	5310	2248	899	CS063	63D4/71A4	PS063	56C
9.6	2.6	2039	182.53	5310	2248	899	CS063	63D4/71A4	PS063	56C
9.5	2.6	2067	185.05	5310	2248	899	CS063	63D4/71A4	PS063	56C
8.0	2.2	2433	217.79	5310	2248	899	CS063	63D4/71A4	PS063	56C
6.6	1.8	2985	267.16	5310	2248	899	CS063	63D4/71A4	PS063	56C
8.6	3.9	2269	203.11	8851	4047	1619	CS083	63D4/71A4	PS083	56C
8.5	3.9	2294	205.34	8851	4047	1619	CS083	63D4/71A4	PS083	56C
7.7	3.5	2525	226.04	8851	4047	1619	CS083	63D4/71A4	PS083	56C
7.0	3.2	2798	250.50	8851	4047	1619	CS083	63D4/71A4	PS083	56C
6.6	3.0	2973	266.13	8851	4047	1619	CS083	63D4/71A4	PS083	56C
6.0	2.7	3266	292.36	8851	4047	1619	CS083	63D4/71A4	PS083	56C
5.5	2.5	3527	315.73	8851	4047	1619	CS083	63D4/71A4	PS083	56C
4.9	2.2	4028	360.58	8851	4047	1619	CS083	63D4/71A4	PS083	56C
5.5	4.0	3584	320.79	14161	4946	2023	CS103	63D4/71A4	PS103	56C
5.1	3.7	3861	345.60	14161	4946	2023	CS103	63D4/71A4	PS103	56C
4.4	3.2	4409	394.69	14161	4946	2023	CS103	63D4/71A4	PS103	56C

0.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
38.0	3.9	795	46.00	3098	1349	1349	CS052	71B4	PS052	56C
37.1	3.8	816	47.20	3098	1349	1349	CS052	71B4	PS052	56C
33.5	3.4	903	52.25	3098	1349	1349	CS052	71B4	PS052	56C
30.2	3.1	1000	57.86	3098	1349	1349	CS052	71B4	PS052	56C
29.5	3.0	1027	59.42	3098	1349	1349	CS052	71B4	PS052	56C
24.0	2.5	1259	72.83	3098	1349	1349	CS052	71B4	PS052	56C
37.1	3.9	798	47.14	3098	1349	1349	CS053	71B4	PS053	56C
30.3	3.2	978	57.79	3098	1349	1349	CS053	71B4	PS053	56C
27.5	2.9	1079	63.74	3098	1349	1349	CS053	71B4	PS053	56C
23.6	2.5	1256	74.20	3098	1349	1349	CS053	71B4	PS053	56C
22.4	2.3	1323	78.14	3098	1349	1349	CS053	71B4	PS053	56C
18.3	1.9	1622	95.84	3098	1349	1349	CS053	71B4	PS053	56C
14.9	1.6	1989	117.48	3098	1349	1349	CS053	71B4	PS053	56C
12.7	1.3	2327	137.45	3098	1349	1349	CS053	71B4	PS053	56C
9.9	1.0	3005	177.55	3098	1349	1349	CS053	71B4	PS053	56C
21.5	3.9	1378	81.43	5310	2248	899	CS063	71B4	PS063	56C
17.5	3.1	1691	99.89	5310	2248	899	CS063	71B4	PS063	56C
13.8	2.5	2140	126.43	5310	2248	899	CS063	71B4	PS063	56C
11.6	2.1	2553	150.85	5310	2248	899	CS063	71B4	PS063	56C
9.6	1.7	3090	182.53	5310	2248	899	CS063	71B4	PS063	56C
9.5	1.7	3132	185.05	5310	2248	899	CS063	71B4	PS063	56C
8.0	1.4	3687	217.79	5310	2248	899	CS063	71B4	PS063	56C
6.6	1.2	4522	267.16	5310	2248	899	CS063	71B4	PS063	56C
12.8	3.8	2308	136.34	8851	4047	1619	CS083	71B4	PS083	56C
11.0	3.3	2687	158.76	8851	4047	1619	CS083	71B4	PS083	56C
9.5	2.8	3129	184.88	8851	4047	1619	CS083	71B4	PS083	56C
8.6	2.6	3438	203.11	8851	4047	1619	CS083	71B4	PS083	56C
8.5	2.5	3476	205.34	8851	4047	1619	CS083	71B4	PS083	56C
7.7	2.3	3826	226.04	8851	4047	1619	CS083	71B4	PS083	56C
7.0	2.1	4240	250.50	8851	4047	1619	CS083	71B4	PS083	56C
6.6	2.0	4505	266.13	8851	4047	1619	CS083	71B4	PS083	56C
6.0	1.8	4949	292.36	8851	4047	1619	CS083	71B4	PS083	56C
5.5	1.7	5344	315.73	8851	4047	1619	CS083	71B4	PS083	56C
4.9	1.5	6103	360.58	8851	4047	1619	CS083	71B4	PS083	56C
7.9	3.8	3772	222.85	14161	4946	2023	CS103	71B4	PS103	56C
7.8	3.7	3804	224.76	14161	4946	2023	CS103	71B4	PS103	56C
6.4	3.1	4641	274.20	14161	4946	2023	CS103	71B4	PS103	56C
6.2	3.0	4755	280.89	14161	4946	2023	CS103	71B4	PS103	56C

5.1 S GEARED MOTORS

0.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
6.0	2.8	4998	292.36	14161	4946	2023	-	-	PS103	56C
5.5	2.6	5430	320.79	14161	4946	2023	CS103	71B4	PS103	56C
5.1	2.4	5850	345.60	14161	4946	2023	CS103	71B4	PS103	56C
4.4	2.1	6681	394.69	14161	4946	2023	CS103	71B4	PS103	56C

0.75 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
72.7	3.7	624	24.07	2301	1186	1186	CS052	71C4/80A4	PS052	56C
69.4	3.9	653	25.20	2567	1202	1202	CS052	71C4/80A4	PS052	56C
67.9	3.8	669	25.79	2567	1209	1209	CS052	71C4/80A4	PS052	56C
62.9	3.6	721	27.81	2567	1234	1234	CS052	71C4/80A4	PS052	56C
58.3	3.3	778	30.00	2567	1260	1260	CS052	71C4/80A4	PS052	56C
53.8	3.1	844	32.55	2655	1288	1288	CS052	71C4/80A4	PS052	56C
53.0	3.1	856	33.00	2655	1293	1293	CS052	71C4/80A4	PS052	56C
51.3	3.0	884	34.09	2655	1304	1304	CS052	71C4/80A4	PS052	56C
47.9	3.1	948	36.55	2921	1328	1328	CS052	71C4/80A4	PS052	56C
45.2	2.9	1005	38.75	2921	1348	1348	CS052	71C4/80A4	PS052	56C
43.9	3.0	1035	39.90	3098	1349	1349	CS052	71C4/80A4	PS052	56C
41.1	2.8	1105	42.63	3098	1349	1349	CS052	71C4/80A4	PS052	56C
38.0	2.6	1193	46.00	3098	1349	1349	CS052	71C4/80A4	PS052	56C
37.1	2.5	1224	47.20	3098	1349	1349	CS052	71C4/80A4	PS052	56C
33.5	2.3	1355	52.25	3098	1349	1349	CS052	71C4/80A4	PS052	56C
30.2	2.1	1500	57.86	3098	1349	1349	CS052	71C4/80A4	PS052	56C
29.5	2.0	1541	59.42	3098	1349	1349	CS052	71C4/80A4	PS052	56C
24.0	1.6	1889	72.83	3098	1349	1349	CS052	71C4/80A4	PS052	56C
47.9	3.3	927	36.50	3098	1330	1330	CS053	71C4/80A4	PS053	56C
37.1	2.6	1197	47.14	3098	1349	1349	CS053	71C4/80A4	PS053	56C
30.3	2.1	1467	57.79	3098	1349	1349	CS053	71C4/80A4	PS053	56C
27.5	1.9	1618	63.74	3098	1349	1349	CS053	71C4/80A4	PS053	56C
23.6	1.6	1884	74.20	3098	1349	1349	CS053	71C4/80A4	PS053	56C
22.4	1.6	1984	78.14	3098	1349	1349	CS053	71C4/80A4	PS053	56C
18.3	1.3	2433	95.84	3098	1349	1349	CS053	71C4/80A4	PS053	56C
14.9	1.0	2983	117.48	3098	1349	1349	CS053	71C4/80A4	PS053	56C
32.7	3.8	1388	53.53	5310	2248	899	CS062	71C4/80A4	PS062	56C
31.8	3.7	1426	55.00	5310	2248	899	CS062	71C4/80A4	PS062	56C
25.9	3.0	1749	67.47	5310	2248	899	CS062	71C4/80A4	PS062	56C
31.7	3.8	1404	55.29	5310	2248	899	CS063	71C4/80A4	PS063	56C

0.75 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
29.8	3.6	1491	58.72	5310	2248	899	CS063	71C4/80A4	PS063	56C
26.6	3.2	1672	65.85	5310	2248	899	CS063	71C4/80A4	PS063	56C
25.6	3.1	1733	68.25	5310	2248	899	CS063	71C4/80A4	PS063	56C
23.8	2.8	1869	73.63	5310	2248	899	CS063	71C4/80A4	PS063	56C
21.5	2.6	2068	81.43	5310	2248	899	CS063	71C4/80A4	PS063	56C
17.5	2.1	2536	99.89	5310	2248	899	CS063	71C4/80A4	PS063	56C
13.8	1.7	3210	126.43	5310	2248	899	CS063	71C4/80A4	PS063	56C
11.6	1.4	3830	150.85	5310	2248	899	CS063	71C4/80A4	PS063	56C
9.6	1.1	4634	182.53	5310	2248	899	CS063	71C4/80A4	PS063	56C
9.5	1.1	4698	185.05	5310	2248	899	CS063	71C4/80A4	PS063	56C
19.1	3.8	2323	91.49	8851	4047	1619	CS083	71C4/80A4	PS083	56C
17.4	3.5	2555	100.62	8851	4047	1619	CS083	71C4/80A4	PS083	56C
14.9	3.0	2975	117.17	8851	4047	1619	CS083	71C4/80A4	PS083	56C
13.6	2.7	3268	128.73	8851	4047	1619	CS083	71C4/80A4	PS083	56C
12.8	2.6	3462	136.34	8851	4047	1619	CS083	71C4/80A4	PS083	56C
11.0	2.2	4031	158.76	8851	4047	1619	CS083	71C4/80A4	PS083	56C
9.5	1.9	4694	184.88	8851	4047	1619	CS083	71C4/80A4	PS083	56C
8.6	1.7	5157	203.11	8851	4047	1619	CS083	71C4/80A4	PS083	56C
8.5	1.7	5214	205.34	8851	4047	1619	CS083	71C4/80A4	PS083	56C
7.7	1.5	5739	226.04	8851	4047	1619	CS083	71C4/80A4	PS083	56C
7.0	1.4	6360	250.50	8851	4047	1619	CS083	71C4/80A4	PS083	56C
6.6	1.3	6757	266.13	8851	4047	1619	CS083	71C4/80A4	PS083	56C
6.0	1.2	7423	292.36	8851	4047	1619	CS083	71C4/80A4	PS083	56C
5.5	1.1	8016	315.73	8851	4047	1619	CS083	71C4/80A4	PS083	56C
12.4	3.9	3586	141.24	14161	4946	2023	CS103	71C4/80A4	PS103	56C
10.1	3.2	4412	173.78	14161	4946	2023	CS103	71C4/80A4	PS103	56C
9.3	3.0	4786	188.51	14161	4946	2023	CS103	71C4/80A4	PS103	56C
8.6	2.7	5208	203.11	14161	4946	2023	-	-	PS103	56C
7.9	2.5	5658	222.85	14161	4946	2023	CS103	71C4/80A4	PS103	56C
7.8	2.5	5707	224.76	14161	4946	2023	CS103	71C4/80A4	PS103	56C
6.4	2.0	6962	274.20	14161	4946	2023	CS103	71C4/80A4	PS103	56C
6.2	2.0	7132	280.89	14161	4946	2023	CS103	71C4/80A4	PS103	56C
6.0	1.9	7497	292.36	14161	4946	2023	-	-	PS103	56C
5.5	1.7	8145	320.79	14161	4946	2023	CS103	71C4/80A4	PS103	56C
5.1	1.6	8775	345.60	14161	4946	2023	CS103	71C4/80A4	PS103	56C
4.4	1.4	10021	394.69	14161	4946	2023	CS103	71C4/80A4	PS103	56C
6.2	3.7	7112	280.10	26552	6744	2518	CS123	71C4/80A4	-	-
5.8	3.5	7646	301.16	26552	6744	2518	CS123	71C4/80A4	-	-

5.1 S GEARED MOTORS

0.75 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
5.1	3.0	8732	343.93	26552	6744	2518	CS123	71C4/80A4	-	-

1 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
128.1	3.9	472	13.66	1859	991	991	CS052	80B4	PS052	56C/143/145TC
114.6	4.0	533	15.27	2124	1022	1022	-	-	PS052	56C/143/145TC
107.5	3.8	563	16.29	2124	1041	1041	CS052	80B4	PS052	56C/143/145TC
93.9	3.3	644	18.63	2124	1080	1080	CS052	80B4	PS052	56C/143/145TC
88.7	3.1	682	19.73	2124	1097	1097	CS052	80B4	PS052	56C/143/145TC
83.2	3.2	727	21.04	2301	1116	1116	CS052	80B4	PS052	56C/143/145TC
81.3	3.1	744	21.53	2301	1122	1122	CS052	80B4	PS052	56C/143/145TC
72.7	2.8	832	24.07	2301	1156	1156	CS052	80B4	PS052	56C/143/145TC
69.4	2.9	871	25.20	2567	1169	1169	CS052	80B4	PS052	56C/143/145TC
67.9	2.9	892	25.79	2567	1176	1176	CS052	80B4	PS052	56C/143/145TC
62.9	2.7	961	27.81	2567	1199	1199	CS052	80B4	PS052	56C/143/145TC
58.3	2.5	1037	30.00	2567	1222	1222	CS052	80B4	PS052	56C/143/145TC
53.8	2.4	1125	32.55	2655	1246	1246	CS052	80B4	PS052	56C/143/145TC
53.0	2.3	1141	33.00	2655	1250	1250	CS052	80B4	PS052	56C/143/145TC
51.3	2.3	1179	34.09	2655	1260	1260	CS052	80B4	PS052	56C/143/145TC
47.9	2.3	1264	36.55	2921	1281	1281	CS052	80B4	PS052	56C/143/145TC
45.2	2.2	1340	38.75	2921	1298	1298	CS052	80B4	PS052	56C/143/145TC
43.9	2.2	1379	39.90	3098	1307	1307	CS052	80B4	PS052	56C/143/145TC
41.1	2.1	1474	42.63	3098	1326	1326	CS052	80B4	PS052	56C/143/145TC
38.0	1.9	1590	46.00	3098	1348	1348	CS052	80B4	PS052	56C/143/145TC
37.1	1.9	1632	47.20	3098	1349	1349	CS052	80B4	PS052	56C/143/145TC
33.5	1.7	1806	52.25	3098	1349	1349	CS052	80B4	PS052	56C/143/145TC
30.2	1.5	2001	57.86	3098	1349	1349	CS052	80B4	PS052	56C/143/145TC
29.5	1.5	2054	59.42	3098	1349	1349	CS052	80B4	PS052	56C/143/145TC
24.0	1.2	2518	72.83	3098	1349	1349	CS052	80B4	PS052	56C/143/145TC
47.9	2.5	1236	36.50	3098	1284	1284	CS053	80B4	PS053	56C/143/145TC
37.1	1.9	1596	47.14	3098	1349	1349	CS053	80B4	PS053	56C/143/145TC
30.3	1.6	1956	57.79	3098	1349	1349	CS053	80B4	PS053	56C/143/145TC
27.5	1.4	2158	63.74	3098	1349	1349	CS053	80B4	PS053	56C/143/145TC
23.6	1.2	2512	74.20	3098	1349	1349	CS053	80B4	PS053	56C/143/145TC
22.4	1.2	2645	78.14	3098	1349	1349	CS053	80B4	PS053	56C/143/145TC
44.4	3.9	1361	39.38	5310	2248	899	CS062	80B4	PS062	56C/143/145TC
40.1	3.5	1509	43.64	5310	2248	899	CS062	80B4	PS062	56C/143/145TC

1 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
38.0	3.3	1594	46.10	5310	2248	899	CS062	80B4	PS062	56C/143/145TC
36.2	3.2	1670	48.30	5310	2248	899	CS062	80B4	PS062	56C/143/145TC
32.7	2.9	1851	53.53	5310	2248	899	CS062	80B4	PS062	56C/143/145TC
31.8	2.8	1902	55.00	5310	2248	899	CS062	80B4	PS062	56C/143/145TC
25.9	2.3	2333	67.47	5310	2248	899	CS062	80B4	PS062	56C/143/145TC
43.7	3.9	1356	40.05	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
35.6	3.2	1663	49.13	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
31.7	2.8	1872	55.29	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
29.8	2.7	1988	58.72	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
26.6	2.4	2229	65.85	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
25.6	2.3	2310	68.25	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
23.8	2.1	2492	73.63	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
21.5	1.9	2757	81.43	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
17.5	1.6	3382	99.89	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
13.8	1.2	4280	126.43	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
11.6	1.0	5107	150.85	5310	2248	899	CS063	80B4	PS063	56C/143/145TC
25.9	3.9	2286	67.52	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
23.6	3.5	2511	74.18	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
21.4	3.2	2766	81.71	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
19.1	2.9	3097	91.49	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
17.4	2.6	3406	100.62	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
14.9	2.2	3967	117.17	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
13.6	2.0	4358	128.73	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
12.8	1.9	4616	136.34	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
11.0	1.6	5375	158.76	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
9.5	1.4	6259	184.88	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
8.6	1.3	6876	203.11	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
8.5	1.3	6951	205.34	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
7.7	1.2	7652	226.04	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
7.0	1.0	8480	250.50	8851	4047	1619	CS083	80B4	PS083	56C/143/145TC
15.8	3.8	3742	110.55	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
14.4	3.4	4106	121.29	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
13.6	3.2	4401	128.73	14161	4946	2023	-	-	PS103	56C/143/145TC
12.4	3.0	4782	141.24	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
10.1	2.4	5883	173.78	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
9.3	2.2	6382	188.51	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
8.6	2.0	6945	203.11	14161	4946	2023	-	-	PS103	56C/143/145TC
7.9	1.9	7544	222.85	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC

1 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
7.8	1.9	7609	224.76	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
6.4	1.5	9282	274.20	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
6.2	1.5	9509	280.89	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
6.0	1.4	9898	292.36	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
5.5	1.3	10860	320.79	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
5.1	1.2	11700	345.60	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
4.4	1.1	13362	394.69	14161	4946	2023	CS103	80B4	PS103	56C/143/145TC
9.0	4.0	6653	194.59	26552	6744	2518	-	-	PS123	143/145TC
8.1	3.6	7299	215.60	26552	6744	2518	CS123	80B4	PS123	143/145TC
7.3	3.3	8089	238.93	26552	6744	2518	CS123	80B4	PS123	143/145TC
6.8	3.1	8651	255.54	26552	6744	2518	CS123	80B4	PS123	143/145TC
6.2	2.8	9482	280.10	26552	6744	2518	CS123	80B4	PS123	143/145TC
5.8	2.6	10195	301.16	26552	6744	2518	CS123	80B4	PS123	143/145TC
5.1	2.3	11643	343.93	26552	6744	2518	CS123	80B4	PS123	143/145TC

1.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
202.9	3.4	447	8.63	1505	845	845	CS052	90S4	PS052	56C/143/145TC
157.1	2.9	578	11.14	1682	906	906	CS052	90S4	PS052	56C/143/145TC
145.8	2.8	622	12.00	1770	924	924	CS052	90S4	PS052	56C/143/145TC
128.1	2.6	708	13.66	1859	956	956	CS052	90S4	PS052	56C/143/145TC
114.6	2.7	792	15.27	2124	983	983	CS052	90S4	PS052	56C/143/145TC
107.5	2.5	845	16.29	2124	999	999	CS052	90S4	PS052	56C/143/145TC
93.9	2.2	966	18.63	2124	1032	1032	CS052	90S4	PS052	56C/143/145TC
88.7	2.1	1023	19.73	2124	1046	1046	CS052	90S4	PS052	56C/143/145TC
83.2	2.1	1091	21.04	2301	1062	1062	CS052	90S4	PS052	56C/143/145TC
81.3	2.1	1117	21.53	2301	1068	1068	CS052	90S4	PS052	56C/143/145TC
72.7	1.8	1248	24.07	2301	1094	1094	CS052	90S4	PS052	56C/143/145TC
69.4	2.0	1307	25.20	2567	1105	1105	CS052	90S4	PS052	56C/143/145TC
67.9	1.9	1337	25.79	2567	1111	1111	CS052	90S4	PS052	56C/143/145TC
62.9	1.8	1442	27.81	2567	1128	1128	CS052	90S4	PS052	56C/143/145TC
58.3	1.6	1556	30.00	2567	1145	1145	CS052	90S4	PS052	56C/143/145TC
53.8	1.6	1688	32.55	2655	1163	1163	CS052	90S4	PS052	56C/143/145TC
53.0	1.6	1711	33.00	2655	1166	1166	CS052	90S4	PS052	56C/143/145TC
51.3	1.5	1768	34.09	2655	1173	1173	CS052	90S4	PS052	56C/143/145TC
47.9	1.5	1895	36.55	2921	1188	1188	CS052	90S4	PS052	56C/143/145TC
45.2	1.5	2010	38.75	2921	1200	1200	CS052	90S4	PS052	56C/143/145TC

1.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
43.9	1.5	2069	39.90	3098	1205	1205	CS052	90S4	PS052	56C/143/145TC
41.1	1.4	2211	42.63	3098	1218	1218	CS052	90S4	PS052	56C/143/145TC
38.0	1.3	2386	46.00	3098	1231	1231	CS052	90S4	PS052	56C/143/145TC
37.1	1.3	2448	47.20	3098	1236	1236	CS052	90S4	PS052	56C/143/145TC
33.5	1.1	2710	52.25	3098	1251	1251	CS052	90S4	PS052	56C/143/145TC
30.2	1.0	3001	57.86	3098	1265	1265	CS052	90S4	PS052	56C/143/145TC
29.5	1.0	3081	59.42	3098	1268	1268	CS052	90S4	-	-
47.9	1.7	1853	36.50	3098	1193	1193	CS053	90S4	PS053	56C/143/145TC
37.1	1.3	2394	47.14	3098	1243	1243	CS053	90S4	PS053	56C/143/145TC
30.3	1.1	2934	57.79	3098	1274	1274	CS053	90S4	PS053	56C/143/145TC
90.7	4.0	1000	19.29	3983	1882	753	CS062	90S4	PS062	56C/143/145TC
89.5	4.0	1024	19.55	4071	1887	755	-	-	PS062	56C/143/145TC
75.5	3.5	1202	23.18	4160	1977	791	CS062	90S4	PS062	56C/143/145TC
73.7	3.4	1232	23.75	4160	1990	796	CS062	90S4	PS062	56C/143/145TC
69.6	3.3	1304	25.14	4248	2020	808	CS062	90S4	PS062	56C/143/145TC
63.3	3.0	1434	27.66	4248	2070	828	CS062	90S4	PS062	56C/143/145TC
58.3	2.8	1571	30.00	4425	2111	844	-	-	PS062	56C/143/145TC
51.6	2.7	1759	33.93	4779	2178	871	CS062	90S4	PS062	56C/143/145TC
47.9	2.8	1897	36.57	5310	2218	887	CS062	90S4	PS062	56C/143/145TC
44.4	2.6	2042	39.38	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
40.1	2.3	2263	43.64	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
38.0	2.2	2391	46.10	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
36.2	2.1	2505	48.30	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
32.7	1.9	2776	53.53	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
31.8	1.9	2852	55.00	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
25.9	1.5	3499	67.47	5310	2248	899	CS062	90S4	PS062	56C/143/145TC
52.1	3.1	1705	33.57	5310	2179	871	CS063	90S4	PS063	56C/143/145TC
46.3	2.8	1918	37.77	5310	2242	897	CS063	90S4	PS063	56C/143/145TC
43.7	2.6	2034	40.05	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
35.6	2.1	2495	49.13	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
31.7	1.9	2807	55.29	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
29.8	1.8	2982	58.72	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
26.6	1.6	3344	65.85	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
25.6	1.5	3466	68.25	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
23.8	1.4	3739	73.63	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
21.5	1.3	4135	81.43	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
17.5	1.0	5072	99.89	5310	2248	899	CS063	90S4	PS063	56C/143/145TC
40.6	4.0	2233	43.05	8851	4047	1427	CS082	90S4	PS082	56C/143/145TC

1.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
34.8	3.4	2606	50.25	8851	4047	1496	CS082	90S4	PS082	56C/143/145TC
32.2	3.1	2814	54.27	8851	4047	1531	CS082	90S4	PS082	56C/143/145TC
28.2	2.8	3214	61.98	8851	4047	1593	CS082	90S4	PS082	56C/143/145TC
25.9	2.6	3429	67.52	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
23.6	2.3	3767	74.18	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
21.4	2.1	4149	81.71	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
19.1	1.9	4646	91.49	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
17.4	1.7	5110	100.62	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
14.9	1.5	5950	117.17	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
13.6	1.4	6537	128.73	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
12.8	1.3	6923	136.34	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
11.0	1.1	8062	158.76	8851	4047	1619	CS083	90S4	PS083	56C/143/145TC
31.7	4.0	2888	55.14	11506	4946	1900	-	-	PS102	56C/143/145TC
25.8	4.0	3553	67.84	14161	4946	2023	-	-	PS102	56C/143/145TC
23.6	3.7	3805	74.18	14161	4946	2023	-	-	PS103	56C/143/145TC
21.5	3.4	4133	81.39	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
19.5	3.1	4558	89.77	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
17.5	2.8	5085	100.15	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
15.8	2.5	5614	110.55	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
14.4	2.3	6159	121.29	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
13.6	2.1	6602	128.73	14161	4946	2023	-	-	PS103	56C/143/145TC
12.4	2.0	7172	141.24	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
10.1	1.6	8825	173.78	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
9.3	1.5	9573	188.51	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
8.6	1.4	10314	203.11	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
7.9	1.3	11317	222.85	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
7.8	1.2	11413	224.76	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
6.4	1.0	13924	274.20	14161	4946	2023	CS103	90S4	PS103	56C/143/145TC
13.5	4.0	6670	130.04	26552	6744	2518	-	-	PS123	143/145TC
13.1	3.9	6793	133.78	26552	6744	2518	CS123	90S4	PS123	143/145TC
11.6	3.5	7690	151.43	26552	6744	2518	CS123	90S4	PS123	143/145TC
9.9	2.9	9015	177.53	26552	6744	2518	CS123	90S4	PS123	143/145TC
9.0	2.7	9881	194.59	26552	6744	2518	CS123	90S4	PS123	143/145TC
8.1	2.4	10948	215.60	26552	6744	2518	CS123	90S4	PS123	143/145TC
7.3	2.2	12133	238.93	26552	6744	2518	CS123	90S4	PS123	143/145TC
6.8	2.0	12977	255.54	26552	6744	2518	CS123	90S4	PS123	143/145TC
6.2	1.9	14223	280.10	26552	6744	2518	CS123	90S4	PS123	143/145TC
5.8	1.7	15293	301.16	26552	6744	2518	CS123	90S4	PS123	143/145TC

5.1 S GEARED MOTORS

1.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
5.1	1.5	17465	343.93	26552	6744	2518	CS123	90S4	PS123	143/145TC

2 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
202.9	2.5	596	8.63	1505	823	823	CS052	90L4	PS052	56C/143/145TC
157.1	2.2	770	11.14	1682	878	878	CS052	90L4	PS052	56C/143/145TC
145.8	2.1	830	12.00	1770	894	894	CS052	90L4	PS052	56C/143/145TC
128.1	2.0	944	13.66	1859	921	921	CS052	90L4	PS052	56C/143/145TC
114.6	2.0	1056	15.27	2124	944	944	CS052	90L4	PS052	56C/143/145TC
107.5	1.9	1126	16.29	2124	958	958	CS052	90L4	PS052	56C/143/145TC
93.9	1.6	1288	18.63	2124	985	985	CS052	90L4	PS052	56C/143/145TC
88.7	1.6	1364	19.73	2124	996	996	CS052	90L4	PS052	56C/143/145TC
83.2	1.6	1455	21.04	2301	1008	1008	CS052	90L4	PS052	56C/143/145TC
81.3	1.5	1489	21.53	2301	1013	1013	CS052	90L4	PS052	56C/143/145TC
72.7	1.4	1664	24.07	2301	1033	1033	CS052	90L4	PS052	56C/143/145TC
69.4	1.5	1743	25.20	2567	1041	1041	CS052	90L4	PS052	56C/143/145TC
67.9	1.4	1783	25.79	2567	1045	1045	CS052	90L4	PS052	56C/143/145TC
62.9	1.3	1923	27.81	2567	1057	1057	CS052	90L4	PS052	56C/143/145TC
58.3	1.2	2074	30.00	2567	1069	1069	CS052	90L4	PS052	56C/143/145TC
53.8	1.2	2251	32.55	2655	1080	1080	CS052	90L4	PS052	56C/143/145TC
53.0	1.2	2282	33.00	2655	1082	1082	CS052	90L4	PS052	56C/143/145TC
51.3	1.1	2357	34.09	2655	1086	1086	CS052	90L4	PS052	56C/143/145TC
47.9	1.2	2527	36.55	2921	1095	1095	CS052	90L4	PS052	56C/143/145TC
45.2	1.1	2679	38.75	2921	1101	1101	CS052	90L4	PS052	56C/143/145TC
43.9	1.1	2759	39.90	3098	1103	1103	CS052	90L4	PS052	56C/143/145TC
41.1	1.1	2947	42.63	3098	1109	1109	CS052	90L4	PS052	56C/143/145TC
47.9	1.3	2471	36.50	3098	1102	1102	CS053	90L4	PS053	56C/143/145TC
131.0	4.0	933	13.36	3717	1660	664	-	-	PS062	56C/143/145TC
109.8	3.6	1102	15.94	3983	1741	696	CS062	90L4	PS062	56C/143/145TC
108.3	3.6	1118	16.16	3983	1747	699	CS062	90L4	PS062	56C/143/145TC
90.7	3.0	1334	19.29	3983	1828	731	CS062	90L4	PS062	56C/143/145TC
89.5	3.0	1352	19.55	4071	1835	734	CS062	90L4	PS062	56C/143/145TC
75.5	2.6	1603	23.18	4160	1913	765	CS062	90L4	PS062	56C/143/145TC
73.7	2.5	1642	23.75	4160	1924	770	CS062	90L4	PS062	56C/143/145TC
69.6	2.4	1739	25.14	4248	1950	780	CS062	90L4	PS062	56C/143/145TC
63.3	2.2	1912	27.66	4248	1993	797	CS062	90L4	PS062	56C/143/145TC
58.3	2.1	2095	30.00	4425	2026	811	-	-	PS062	56C/143/145TC

5.1 S GEARED MOTORS

2 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
51.6	2.0	2346	33.93	4779	2084	834	CS062	90L4	PS062	56C/143/145TC
47.9	2.1	2529	36.57	5310	2116	847	CS062	90L4	PS062	56C/143/145TC
44.4	2.0	2723	39.38	5310	2147	859	CS062	90L4	PS062	56C/143/145TC
40.1	1.8	3017	43.64	5310	2189	876	CS062	90L4	PS062	56C/143/145TC
38.0	1.7	3187	46.10	5310	2211	884	CS062	90L4	PS062	56C/143/145TC
36.2	1.6	3340	48.30	5310	2228	891	CS062	90L4	PS062	56C/143/145TC
32.7	1.4	3701	53.53	5310	2248	899	CS062	90L4	PS062	56C/143/145TC
31.8	1.4	3803	55.00	5310	2248	899	CS062	90L4	PS062	56C/143/145TC
25.9	1.1	4665	67.47	5310	2248	899	CS062	90L4	PS062	56C/143/145TC
52.1	2.3	2273	33.57	5310	2087	835	CS063	90L4	PS063	56C/143/145TC
46.3	2.1	2557	37.77	5310	2139	856	CS063	90L4	PS063	56C/143/145TC
43.7	2.0	2712	40.05	5310	2164	865	CS063	90L4	PS063	56C/143/145TC
35.6	1.6	3327	49.13	5310	2246	898	CS063	90L4	PS063	56C/143/145TC
31.7	1.4	3743	55.29	5310	2248	899	CS063	90L4	PS063	56C/143/145TC
29.8	1.3	3975	58.72	5310	2248	899	CS063	90L4	PS063	56C/143/145TC
26.6	1.2	4458	65.85	5310	2248	899	CS063	90L4	PS063	56C/143/145TC
25.6	1.1	4621	68.25	5310	2248	899	CS063	90L4	PS063	56C/143/145TC
23.8	1.1	4985	73.63	5310	2248	899	CS063	90L4	PS063	56C/143/145TC
67.2	3.9	1801	26.05	7081	4047	1211	CS082	90L4	PS082	56C/143/145TC
61.0	4.0	2002	28.67	7966	4047	1247	-	-	PS082	56C/143/145TC
59.1	3.9	2047	29.60	7966	4047	1259	CS082	90L4	PS082	56C/143/145TC
55.1	4.0	2219	31.78	8851	4047	1286	-	-	PS082	56C/143/145TC
50.1	3.7	2414	34.91	8851	4047	1324	CS082	90L4	PS082	56C/143/145TC
49.3	3.6	2455	35.50	8851	4047	1331	CS082	90L4	PS082	56C/143/145TC
43.7	3.2	2797	40.05	8851	4047	1379	-	-	PS082	56C/143/145TC
40.6	3.0	2977	43.05	8851	4047	1409	CS082	90L4	PS082	56C/143/145TC
34.8	2.5	3475	50.25	8851	4047	1475	CS082	90L4	PS082	56C/143/145TC
32.2	2.4	3752	54.27	8851	4047	1508	CS082	90L4	PS082	56C/143/145TC
28.2	2.1	4285	61.98	8851	4047	1567	CS082	90L4	PS082	56C/143/145TC
25.9	1.9	4572	67.52	8851	4047	1608	CS083	90L4	PS083	56C/143/145TC
23.6	1.8	5023	74.18	8851	4047	1619	CS083	90L4	PS083	56C/143/145TC
21.4	1.6	5532	81.71	8851	4047	1619	CS083	90L4	PS083	56C/143/145TC
19.1	1.4	6195	91.49	8851	4047	1619	CS083	90L4	PS083	56C/143/145TC
17.4	1.3	6813	100.62	8851	4047	1619	CS083	90L4	PS083	56C/143/145TC
14.9	1.1	7934	117.17	8851	4047	1619	CS083	90L4	PS083	56C/143/145TC
13.6	1.0	8716	128.73	8851	4047	1619	CS083	90L4	PS083	56C/143/145TC
39.8	3.8	3042	44.00	11506	4946	1757	CS102	90L4	PS102	56C/143/145TC
34.8	3.5	3509	50.25	12391	4946	1830	-	-	PS102	56C/143/145TC

2 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
31.7	3.0	3812	55.14	11506	4946	1883	CS102	90L4	PS102	56C/143/145TC
29.5	3.4	4107	59.40	14161	4946	1926	CS102	90L4	PS102	56C/143/145TC
25.8	3.0	4691	67.84	14161	4946	2005	CS102	90L4	PS102	56C/143/145TC
23.6	2.8	5073	74.18	14161	4946	2023	-	-	PS103	56C/143/145TC
21.5	2.6	5511	81.39	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
19.5	2.3	6078	89.77	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
17.5	2.1	6781	100.15	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
15.8	1.9	7485	110.55	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
14.4	1.7	8212	121.29	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
13.6	1.6	8803	128.73	14161	4946	2023	-	-	PS103	56C/143/145TC
12.4	1.5	9563	141.24	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
10.1	1.2	11766	173.78	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
9.3	1.1	12763	188.51	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
8.6	1.0	13752	203.11	14161	4946	2023	CS103	90L4	PS103	56C/143/145TC
16.5	3.7	7242	105.91	26552	6744	2518	-	-	PS123	143/145TC
15.6	3.5	7618	112.52	26552	6744	2518	CS123	90L4	PS123	143/145TC
14.2	3.2	8350	123.33	26552	6744	2518	CS123	90L4	PS123	143/145TC
13.5	3.0	8805	130.04	26552	6744	2518	CS123	90L4	PS123	143/145TC
13.1	2.9	9058	133.78	26552	6744	2518	CS123	90L4	PS123	143/145TC
11.6	2.6	10253	151.43	26552	6744	2518	CS123	90L4	PS123	143/145TC
9.9	2.2	12020	177.53	26552	6744	2518	CS123	90L4	PS123	143/145TC
9.0	2.0	13175	194.59	26552	6744	2518	CS123	90L4	PS123	143/145TC
8.1	1.8	14598	215.60	26552	6744	2518	CS123	90L4	PS123	143/145TC
7.3	1.6	16177	238.93	26552	6744	2518	CS123	90L4	PS123	143/145TC
6.8	1.5	17302	255.54	26552	6744	2518	CS123	90L4	PS123	143/145TC
6.2	1.4	18965	280.10	26552	6744	2518	CS123	90L4	PS123	143/145TC
5.8	1.3	20390	301.16	26552	6744	2518	CS123	90L4	PS123	143/145TC
5.1	1.1	23287	343.93	26552	6744	2518	CS123	90L4	PS123	143/145TC

3 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
202.9	1.7	895	8.63	1505	779	779	CS052	112MR4	PS052	182/184TC
157.1	1.5	1156	11.14	1682	821	821	CS052	112MR4	PS052	182/184TC
145.8	1.4	1245	12.00	1770	832	832	CS052	112MR4	PS052	182/184TC
128.1	1.3	1416	13.66	1859	851	851	CS052	112MR4	PS052	182/184TC
114.6	1.3	1584	15.27	2124	867	867	CS052	112MR4	PS052	182/184TC
107.5	1.3	1689	16.29	2124	875	875	CS052	112MR4	PS052	182/184TC

5.1 S GEARED MOTORS

3 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
93.9	1.1	1932	18.63	2124	890	890	CS052	112MR4	PS052	182/184TC
88.7	1.0	2046	19.73	2124	895	895	CS052	112MR4	PS052	182/184TC
83.2	1.1	2182	21.04	2301	901	901	CS052	112MR4	PS052	182/184TC
81.3	1.0	2233	21.53	2301	903	903	CS052	112MR4	PS052	182/184TC
218.8	3.5	830	8.00	2921	1395	558	CS062	112MR4	PS062	182/184TC
196.2	3.2	925	8.92	2921	1435	574	CS062	112MR4	PS062	182/184TC
183.3	3.2	990	9.55	3186	1461	584	CS062	112MR4	PS062	182/184TC
164.4	2.9	1104	10.65	3186	1501	601	CS062	112MR4	PS062	182/184TC
149.5	2.8	1214	11.71	3452	1537	615	CS062	112MR4	PS062	182/184TC
134.0	2.7	1354	13.06	3717	1578	631	CS062	112MR4	PS062	182/184TC
131.0	2.7	1385	13.36	3717	1587	635	CS062	112MR4	PS062	182/184TC
109.8	2.4	1653	15.94	3983	1652	661	CS062	112MR4	PS062	182/184TC
108.3	2.4	1676	16.16	3983	1657	663	CS062	112MR4	PS062	182/184TC
90.7	2.0	2000	19.29	3983	1721	688	CS062	112MR4	PS062	182/184TC
89.5	2.0	2028	19.55	4071	1726	690	CS062	112MR4	PS062	182/184TC
75.5	1.7	2404	23.18	4160	1784	714	CS062	112MR4	PS062	182/184TC
73.7	1.7	2463	23.75	4160	1792	717	CS062	112MR4	PS062	182/184TC
69.6	1.6	2608	25.14	4248	1810	724	CS062	112MR4	PS062	182/184TC
63.3	1.5	2869	27.66	4248	1839	736	CS062	112MR4	PS062	182/184TC
58.3	1.4	3112	30.00	4425	1863	745	CS062	112MR4	PS062	182/184TC
51.6	1.4	3519	33.93	4779	1895	758	CS062	112MR4	PS062	182/184TC
47.9	1.4	3793	36.57	5310	1913	765	CS062	112MR4	PS062	182/184TC
44.4	1.3	4084	39.38	5310	1928	771	CS062	112MR4	PS062	182/184TC
40.1	1.2	4526	43.64	5310	1946	778	CS062	112MR4	PS062	182/184TC
36.2	1.1	5010	48.30	5310	1959	784	CS062	112MR4	-	-
101.2	3.8	1794	17.29	6815	3685	1053	CS082	112MR4	PS082	182/184TC
92.0	3.5	1974	19.03	6815	3793	1084	CS082	112MR4	PS082	182/184TC
86.9	3.3	2089	20.14	6815	3858	1102	CS082	112MR4	PS082	182/184TC
79.1	3.1	2295	22.13	7081	3968	1134	CS082	112MR4	PS082	182/184TC
72.9	2.8	2489	24.00	7081	4047	1161	CS082	112MR4	PS082	182/184TC
67.2	2.6	2702	26.05	7081	4047	1190	CS082	112MR4	PS082	182/184TC
64.1	2.8	2830	27.29	7966	4047	1206	CS082	112MR4	PS082	182/184TC
61.0	2.7	2974	28.67	7966	4047	1224	CS082	112MR4	PS082	182/184TC
59.1	2.6	3070	29.60	7966	4047	1235	CS082	112MR4	PS082	182/184TC
55.1	2.7	3296	31.78	8851	4047	1261	CS082	112MR4	PS082	182/184TC
50.1	2.4	3621	34.91	8851	4047	1295	CS082	112MR4	PS082	182/184TC
49.3	2.4	3682	35.50	8851	4047	1301	CS082	112MR4	PS082	182/184TC
43.7	2.1	4154	40.05	8851	4047	1346	CS082	112MR4	PS082	182/184TC

3 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
40.6	2.0	4466	43.05	8851	4047	1374	CS082	I12MR4	PS082	182/184TC
34.8	1.7	5212	50.25	8851	4047	1434	CS082	I12MR4	PS082	182/184TC
32.2	1.6	5629	54.27	8851	4047	1464	CS082	I12MR4	PS082	182/184TC
28.2	1.4	6428	61.98	8851	4047	1516	CS082	I12MR4	PS082	182/184TC
25.9	1.3	6858	67.52	8851	4047	1554	CS083	I12MR4	PS083	182/184TC
23.6	1.2	7534	74.18	8851	4047	1592	CS083	I12MR4	PS083	182/184TC
21.4	1.1	8299	81.71	8851	4047	1619	CS083	I12MR4	PS083	182/184TC
54.0	4.0	3361	32.40	13276	4946	1577	CS102	I12MR4	PS102	182/184TC
50.1	3.4	3657	34.91	12391	4946	1612	-	-	PS102	182/184TC
45.7	3.3	3973	38.30	13276	4946	1659	CS102	I12MR4	PS102	182/184TC
41.2	2.8	4411	42.53	12391	4946	1711	CS102	I12MR4	PS102	182/184TC
39.8	2.5	4564	44.00	11506	4946	1729	CS102	I12MR4	PS102	182/184TC
37.1	2.9	4888	47.13	14161	4946	1764	CS102	I12MR4	PS102	182/184TC
34.8	2.4	5264	50.25	12391	4946	1797	-	-	PS102	182/184TC
31.7	2.0	5719	55.14	11506	4946	1847	CS102	I12MR4	PS102	182/184TC
29.5	2.3	6161	59.40	14161	4946	1887	CS102	I12MR4	PS102	182/184TC
25.8	2.0	7036	67.84	14161	4946	1961	CS102	I12MR4	PS102	182/184TC
23.6	1.9	7609	74.18	14161	4946	2013	-	-	PS103	182/184TC
21.5	1.7	8266	81.39	14161	4946	2023	CS103	I12MR4	PS103	182/184TC
19.5	1.6	9117	89.77	14161	4946	2023	CS103	I12MR4	PS103	182/184TC
17.5	1.4	10171	100.15	14161	4946	2023	CS103	I12MR4	PS103	182/184TC
15.8	1.3	11227	110.55	14161	4946	2023	CS103	I12MR4	PS103	182/184TC
14.4	1.1	12319	121.29	14161	4946	2023	CS103	I12MR4	PS103	182/184TC
13.6	1.1	13074	128.73	14161	4946	2023	CS103	I12MR4	PS103	182/184TC
26.5	3.9	6846	66.00	26552	6744	2518	CS122	I12MR4	PS122	182/184TC
27.0	3.6	6585	64.84	23897	6744	2518	CS123	I12MR4	PS123	182/184TC
24.6	3.3	7218	71.07	23897	6744	2518	CS123	I12MR4	PS123	182/184TC
22.3	3.3	7969	78.46	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
20.1	3.0	8863	87.27	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
16.5	2.5	10756	105.91	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
15.6	2.3	11427	112.52	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
14.2	2.1	12525	123.33	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
13.5	2.0	13207	130.04	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
13.1	2.0	13587	133.78	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
11.6	1.7	15380	151.43	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
9.9	1.5	18030	177.53	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
9.0	1.3	19762	194.59	26552	6744	2518	CS123	I12MR4	PS123	182/184TC
8.1	1.2	21896	215.60	26552	6744	2518	CS123	I12MR4	PS123	182/184TC

3 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
7.3	1.1	24266	238.93	26552	6744	2518	CS123	112MR4	PS123	182/184TC
6.8	1.0	25953	255.54	26552	6744	2518	CS123	112MR4	PS123	182/184TC
17.7	3.9	10035	98.81	39297	7868	4159	S143	112MR4	IS143	182/184TC
15.9	3.7	11177	110.05	41895	7868	4159	S143	112MR4	IS143	182/184TC
14.2	3.4	12537	123.44	42080	7868	4159	S143	112MR4	IS143	182/184TC
12.5	3.0	14182	139.64	42845	7868	4159	S143	112MR4	IS143	182/184TC
11.7	2.8	15142	149.10	42356	7868	4159	S143	112MR4	IS143	182/184TC
11.1	2.1	15994	157.49	33645	7868	4159	S143	112MR4	IS143	182/184TC
10.2	2.4	17422	171.55	41327	7868	4159	S143	112MR4	IS143	182/184TC
10.0	2.1	17814	175.41	37473	7868	4159	S143	112MR4	IS143	182/184TC
8.9	2.1	19981	196.74	42030	7868	4159	S143	112MR4	IS143	182/184TC
7.9	1.8	22604	222.57	41731	7868	4159	S143	112MR4	IS143	182/184TC
7.4	1.8	24134	237.63	43205	7868	4159	S143	112MR4	IS143	182/184TC
6.4	1.5	27768	273.41	42411	7868	4159	S143	112MR4	IS143	182/184TC

5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
202.9	1.0	1491	8.63	1505	691	691	CS052	112M4	-	-
218.8	2.1	1383	8.00	2921	1306	522	CS062	112M4	PS062	182/184TC
196.2	1.9	1542	8.92	2921	1336	534	CS062	112M4	PS062	182/184TC
183.3	1.9	1650	9.55	3186	1354	542	CS062	112M4	PS062	182/184TC
164.4	1.7	1840	10.65	3186	1383	553	CS062	112M4	PS062	182/184TC
149.5	1.7	2024	11.71	3452	1407	563	CS062	112M4	PS062	182/184TC
134.0	1.6	2257	13.06	3717	1433	573	CS062	112M4	PS062	182/184TC
131.0	1.6	2309	13.36	3717	1438	575	CS062	112M4	PS062	182/184TC
109.8	1.4	2755	15.94	3983	1475	590	CS062	112M4	PS062	182/184TC
108.3	1.4	2794	16.16	3983	1478	591	CS062	112M4	PS062	182/184TC
90.7	1.2	3334	19.29	3983	1506	603	CS062	112M4	PS062	182/184TC
89.5	1.2	3380	19.55	4071	1508	603	CS062	112M4	PS062	182/184TC
75.5	1.0	4007	23.18	4160	1526	610	CS062	112M4	PS062	182/184TC
73.7	1.0	4106	23.75	4160	1527	611	CS062	112M4	PS062	182/184TC
238.5	3.8	1269	7.34	4868	2784	795	CS082	112M4	PS082	182/184TC
217.1	3.8	1394	8.06	5310	2865	818	CS082	112M4	PS082	182/184TC
176.0	3.3	1719	9.94	5753	3051	872	CS082	112M4	PS082	182/184TC
150.8	3.1	2006	11.61	6196	3194	913	CS082	112M4	PS082	182/184TC
137.3	3.0	2204	12.75	6638	3284	938	CS082	112M4	PS082	182/184TC
124.6	2.8	2428	14.04	6727	3378	965	CS082	112M4	PS082	182/184TC

5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
113.4	2.6	2667	15.43	6815	3470	992	CS082	112M4	PS082	182/184TC
111.3	2.5	2718	15.73	6815	3489	997	CS082	112M4	PS082	182/184TC
101.2	2.3	2990	17.29	6815	3585	1024	CS082	112M4	PS082	182/184TC
92.0	2.1	3289	19.03	6815	3683	1052	CS082	112M4	PS082	182/184TC
86.9	2.0	3481	20.14	6815	3742	1069	CS082	112M4	PS082	182/184TC
79.1	1.9	3825	22.13	7081	3840	1097	CS082	112M4	PS082	182/184TC
72.9	1.7	4149	24.00	7081	3926	1122	CS082	112M4	PS082	182/184TC
67.2	1.6	4503	26.05	7081	4014	1147	CS082	112M4	PS082	182/184TC
64.1	1.7	4717	27.29	7966	4047	1161	CS082	112M4	PS082	182/184TC
61.0	1.6	4957	28.67	7966	4047	1176	CS082	112M4	PS082	182/184TC
59.1	1.6	5117	29.60	7966	4047	1186	CS082	112M4	PS082	182/184TC
55.1	1.6	5493	31.78	8851	4047	1208	CS082	112M4	PS082	182/184TC
50.1	1.5	6035	34.91	8851	4047	1238	CS082	112M4	PS082	182/184TC
49.3	1.4	6137	35.50	8851	4047	1243	CS082	112M4	PS082	182/184TC
43.7	1.3	6924	40.05	8851	4047	1280	CS082	112M4	PS082	182/184TC
40.6	1.2	7443	43.05	8851	4047	1303	CS082	112M4	PS082	182/184TC
34.8	1.0	8687	50.25	8851	4047	1351	CS082	112M4	PS082	182/184TC
101.7	3.9	2976	17.21	11506	4463	1275	CS102	112M4	-	-
92.1	3.8	3285	19.00	12391	4597	1313	CS102	112M4	PS102	182/184TC
84.0	3.4	3601	20.83	12391	4724	1350	CS102	112M4	PS102	182/184TC
79.1	3.2	3863	22.13	12391	4807	1373	-	-	PS102	182/184TC
72.1	3.2	4197	24.28	13276	4942	1412	CS102	112M4	PS102	182/184TC
66.5	2.9	4552	26.33	13276	4946	1446	CS102	112M4	PS102	182/184TC
58.6	2.6	5163	29.87	13276	4946	1500	CS102	112M4	PS102	182/184TC
54.0	2.4	5601	32.40	13276	4946	1535	CS102	112M4	PS102	182/184TC
50.1	2.0	6095	34.91	12391	4946	1566	-	-	PS102	182/184TC
45.7	2.0	6621	38.30	13276	4946	1609	CS102	112M4	PS102	182/184TC
41.2	1.7	7351	42.53	12391	4946	1656	CS102	112M4	PS102	182/184TC
39.8	1.5	7606	44.00	11506	4946	1671	CS102	112M4	PS102	182/184TC
37.1	1.7	8147	47.13	14161	4946	1703	CS102	112M4	PS102	182/184TC
34.8	1.4	8774	50.25	12391	4946	1731	-	-	PS102	182/184TC
31.7	1.2	9531	55.14	11506	4946	1775	CS102	112M4	PS102	182/184TC
29.5	1.4	10268	59.40	14161	4946	1810	CS102	112M4	PS102	182/184TC
25.8	1.2	11727	67.84	14161	4946	1872	CS102	112M4	PS102	182/184TC
23.6	1.1	12557	74.18	14161	4946	1919	CS103	112M4	PS103	182/184TC
21.5	1.0	13777	81.39	14161	4946	1963	CS103	112M4	PS103	182/184TC
42.6	3.7	7099	41.07	26552	6744	2342	CS122	112M4	PS122	182/184TC
40.1	3.5	7537	43.60	26552	6744	2381	CS122	112M4	PS122	182/184TC

5.1 S GEARED MOTORS

5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
39.2	2.8	7715	44.63	21242	6744	2396	CS122	112M4	PS122	182/184TC
35.7	2.5	8477	49.04	21242	6744	2457	CS122	112M4	PS122	182/184TC
32.6	2.5	9292	53.75	23012	6744	2518	CS122	112M4	PS122	182/184TC
26.5	2.3	11409	66.00	26552	6744	2518	CS122	112M4	PS122	182/184TC
27.0	2.2	10975	64.84	23897	6744	2518	CS123	112M4	PS123	182/184TC
24.6	2.0	12030	71.07	23897	6744	2518	CS123	112M4	PS123	182/184TC
22.3	2.0	13281	78.46	26552	6744	2518	CS123	112M4	PS123	182/184TC
20.1	1.8	14771	87.27	26552	6744	2518	CS123	112M4	PS123	182/184TC
16.5	1.5	17927	105.91	26552	6744	2518	CS123	112M4	PS123	182/184TC
15.6	1.4	19045	112.52	26552	6744	2518	CS123	112M4	PS123	182/184TC
14.2	1.3	20875	123.33	26552	6744	2518	CS123	112M4	PS123	182/184TC
13.5	1.2	22012	130.04	26552	6744	2518	CS123	112M4	PS123	182/184TC
13.1	1.2	22644	133.78	26552	6744	2518	CS123	112M4	PS123	182/184TC
11.6	1.0	25633	151.43	26552	6744	2518	CS123	112M4	PS123	182/184TC
27.1	3.9	10948	64.68	42257	7868	4159	S143	112M4	IS143	182/184TC
25.3	3.7	11689	69.06	43158	7868	4159	S143	112M4	IS143	182/184TC
22.0	2.8	13449	79.45	37469	7868	4159	S143	112M4	IS143	182/184TC
17.7	2.3	16725	98.81	39297	7868	4159	S143	112M4	IS143	182/184TC
15.9	2.2	18629	110.05	41895	7868	4159	S143	112M4	IS143	182/184TC
14.2	2.0	20894	123.44	42080	7868	4159	S143	112M4	IS143	182/184TC
12.5	1.8	23637	139.64	42845	7868	4159	S143	112M4	IS143	182/184TC
11.7	1.7	25237	149.10	42356	7868	4159	S143	112M4	IS143	182/184TC
11.1	1.3	26657	157.49	33645	7868	4159	S143	112M4	IS143	182/184TC
10.2	1.4	29037	171.55	41327	7868	4159	S143	112M4	IS143	182/184TC
10.0	1.3	29691	175.41	37473	7868	4159	S143	112M4	IS143	182/184TC
8.9	1.3	33302	196.74	42030	7868	4159	S143	112M4	IS143	182/184TC
7.9	1.1	37673	222.57	41731	7868	4159	S143	112M4	IS143	182/184TC
7.4	1.1	40223	237.63	43205	7868	4159	S143	112M4	IS143	182/184TC

7.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
238.5	2.6	1903	7.34	4868	2731	780	CS082	132MS4	PS082	213/215TC
217.1	2.5	2091	8.06	5310	2807	802	CS082	132MS4	PS082	213/215TC
176.0	2.2	2578	9.94	5753	2979	851	CS082	132MS4	PS082	213/215TC
150.8	2.1	3009	11.61	6196	3111	889	CS082	132MS4	PS082	213/215TC
137.3	2.0	3306	12.75	6638	3192	912	CS082	132MS4	PS082	213/215TC
124.6	1.8	3642	14.04	6727	3276	936	CS082	132MS4	PS082	213/215TC

5.1 S GEARED MOTORS

TECHNICAL CATALOGUE

7.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
113.4	1.7	4001	15.43	6815	3359	960	CS082	132MS4	PS082	213/215TC
111.3	1.7	4078	15.73	6815	3376	965	CS082	132MS4	PS082	213/215TC
101.2	1.5	4485	17.29	6815	3461	989	CS082	132MS4	PS082	213/215TC
92.0	1.4	4934	19.03	6815	3546	1013	CS082	132MS4	PS082	213/215TC
86.9	1.3	5222	20.14	6815	3597	1028	CS082	132MS4	PS082	213/215TC
79.1	1.2	5737	22.13	7081	3681	1052	CS082	132MS4	PS082	213/215TC
72.9	1.1	6223	24.00	7081	3753	1072	CS082	132MS4	PS082	213/215TC
67.2	1.0	6754	26.05	7081	3826	1093	CS082	132MS4	PS082	213/215TC
64.1	1.1	7076	27.29	7966	3867	1105	CS082	132MS4	PS082	213/215TC
61.0	1.1	7435	28.67	7966	3911	1117	CS082	132MS4	PS082	213/215TC
59.1	1.0	7675	29.60	7966	3938	1125	CS082	132MS4	PS082	213/215TC
55.1	1.1	8240	31.78	8851	4000	1143	CS082	132MS4	PS082	213/215TC
217.1	3.6	2112	8.06	7523	3488	997	-	-	PS102	213/215TC
197.8	3.5	2294	8.85	7966	3589	1025	CS102	132MS4	PS102	213/215TC
160.8	3.0	2822	10.88	8408	3819	1091	CS102	132MS4	PS102	213/215TC
137.3	2.7	3339	12.75	8851	4000	1143	-	-	PS102	213/215TC
125.1	2.9	3628	13.99	10621	4112	1175	CS102	132MS4	PS102	213/215TC
113.4	2.7	4041	15.43	11063	4228	1208	-	-	PS102	213/215TC
101.7	2.6	4463	17.21	11506	4365	1247	CS102	132MS4	PS102	213/215TC
92.1	2.5	4927	19.00	12391	4489	1283	CS102	132MS4	PS102	213/215TC
84.0	2.3	5401	20.83	12391	4606	1316	CS102	132MS4	PS102	213/215TC
79.1	2.1	5794	22.13	12391	4680	1337	-	-	PS102	213/215TC
72.1	2.1	6295	24.28	13276	4804	1373	CS102	132MS4	PS102	213/215TC
66.5	1.9	6828	26.33	13276	4911	1403	CS102	132MS4	PS102	213/215TC
58.6	1.7	7745	29.87	13276	4946	1451	CS102	132MS4	PS102	213/215TC
54.0	1.6	8401	32.40	13276	4946	1482	CS102	132MS4	PS102	213/215TC
50.1	1.4	9052	34.91	12391	4946	1511	CS102	132MS4	PS102	213/215TC
45.7	1.3	9932	38.30	13276	4946	1546	CS102	132MS4	PS102	213/215TC
41.2	1.1	11027	42.53	12391	4946	1587	CS102	132MS4	PS102	213/215TC
37.1	1.2	12220	47.13	14161	4946	1626	CS102	132MS4	PS102	213/215TC
66.9	3.9	6782	26.15	26552	6744	2000	CS122	132MS4	PS122	213/215TC
61.2	3.6	7416	28.60	26552	6744	2048	CS122	132MS4	PS122	213/215TC
57.4	3.4	7912	30.51	26552	6744	2083	CS122	132MS4	PS122	213/215TC
53.4	3.1	8494	32.76	26552	6744	2122	CS122	132MS4	PS122	213/215TC
52.3	3.1	8672	33.44	26552	6744	2133	CS122	132MS4	PS122	213/215TC
49.7	2.9	9127	35.20	26552	6744	2161	CS122	132MS4	PS122	213/215TC
42.6	2.5	10649	41.07	26552	6744	2245	CS122	132MS4	PS122	213/215TC
40.1	2.3	11305	43.60	26552	6744	2277	CS122	132MS4	PS122	213/215TC

5.1 S GEARED MOTORS

7.5 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
39.2	1.8	11572	44.63	21242	6744	2290	CS122	132MS4	PS122	213/215TC
35.7	1.7	12716	49.04	21242	6744	2341	CS122	132MS4	PS122	213/215TC
32.6	1.7	13938	53.75	23012	6744	2390	CS122	132MS4	PS122	213/215TC
26.5	1.6	17114	66.00	26552	6744	2497	CS122	132MS4	PS122	213/215TC
27.0	1.5	16463	64.84	23897	6744	2498	CS123	132MS4	PS123	213/215TC
24.6	1.3	18045	71.07	23897	6744	2518	CS123	132MS4	PS123	213/215TC
22.3	1.3	19921	78.46	26552	6744	2518	CS123	132MS4	PS123	213/215TC
20.1	1.2	22157	87.27	26552	6744	2518	CS123	132MS4	PS123	213/215TC
78.7	3.7	5768	22.24	21418	7868	4159	S142	132MS4	-	-
69.3	2.9	6550	25.26	18710	7868	4159	S142	132MS4	IS142	213/215TC
61.8	2.9	7347	28.33	20984	7868	4159	S142	132MS4	IS142	213/215TC
54.6	2.9	8311	32.05	23739	7868	4159	S142	132MS4	IS142	213/215TC
51.1	2.9	8874	34.22	25346	7868	4159	S142	132MS4	IS142	213/215TC
44.4	3.8	10210	39.38	39216	7868	4159	S142	132MS4	IS142	213/215TC
38.2	3.1	11620	45.77	35517	7868	4159	S143	132MS4	IS143	213/215TC
34.3	3.1	12942	50.97	39561	7868	4159	S143	132MS4	IS143	213/215TC
30.6	2.9	14516	57.17	41904	7868	4159	S143	132MS4	IS143	213/215TC
27.1	2.6	16422	64.68	42257	7868	4159	S143	132MS4	IS143	213/215TC
25.3	2.5	17533	69.06	43158	7868	4159	S143	132MS4	IS143	213/215TC
22.0	1.9	20173	79.45	37469	7868	4159	S143	132MS4	IS143	213/215TC
17.7	1.6	25088	98.81	39297	7868	4159	S143	132MS4	IS143	213/215TC
15.9	1.5	27943	110.05	41895	7868	4159	S143	132MS4	IS143	213/215TC
14.2	1.3	31342	123.44	42080	7868	4159	S143	132MS4	IS143	213/215TC
12.5	1.2	35456	139.64	42845	7868	4159	S143	132MS4	IS143	213/215TC
11.7	1.1	37856	149.10	42356	7868	4159	S143	132MS4	IS143	213/215TC
23.8	3.7	18694	73.63	68854	8992	4361	S153	132MS4	IS153	213/215TC
20.1	2.8	22129	87.16	62889	8992	4361	S153	132MS4	IS153	213/215TC
18.0	2.8	24698	97.27	70191	8992	4361	S153	132MS4	IS153	213/215TC
15.7	2.8	28353	111.67	80575	8992	4361	S153	132MS4	IS153	213/215TC
14.3	2.7	31120	122.57	84402	8992	4361	S153	132MS4	IS153	213/215TC
12.6	2.3	35346	139.21	80913	8992	4361	S153	132MS4	IS153	213/215TC
11.4	1.6	39105	154.02	63094	8992	4361	S153	132MS4	IS153	213/215TC
10.9	1.8	40628	160.02	71552	8992	4361	S153	132MS4	IS153	213/215TC
9.9	1.6	44893	176.81	72434	8992	4361	S153	132MS4	IS153	213/215TC
9.0	1.6	49273	194.06	79497	8992	4361	S153	132MS4	IS153	213/215TC
7.9	1.5	55964	220.42	82782	8992	4361	S153	132MS4	IS153	213/215TC
6.9	1.1	64328	253.36	73272	8992	4361	S153	132MS4	-	-
6.9	1.1	64971	253.36	73272	8992	4361	-	-	IS153	213/215TC

10 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
238.5	1.9	2537	7.34	4868	2678	765	CS082	132M4	PS082	213/215TC
217.1	1.9	2788	8.06	5310	2748	785	CS082	132M4	PS082	213/215TC
176.0	1.7	3438	9.94	5753	2908	831	CS082	132M4	PS082	213/215TC
150.8	1.5	4013	11.61	6196	3027	865	CS082	132M4	PS082	213/215TC
137.3	1.5	4408	12.75	6638	3100	886	CS082	132M4	PS082	213/215TC
124.6	1.4	4856	14.04	6727	3175	907	CS082	132M4	PS082	213/215TC
113.4	1.3	5334	15.43	6815	3248	928	CS082	132M4	PS082	213/215TC
111.3	1.3	5437	15.73	6815	3263	932	CS082	132M4	PS082	213/215TC
101.2	1.1	5979	17.29	6815	3336	953	CS082	132M4	PS082	213/215TC
92.0	1.0	6579	19.03	6815	3409	974	CS082	132M4	PS082	213/215TC
217.1	2.7	2815	8.06	7523	3442	983	-	-	PS102	213/215TC
197.8	2.6	3059	8.85	7966	3539	1011	CS102	132M4	PS102	213/215TC
160.8	2.2	3763	10.88	8408	3757	1073	CS102	132M4	PS102	213/215TC
137.3	2.0	4452	12.75	8851	3926	1122	-	-	PS102	213/215TC
125.1	2.2	4837	13.99	10621	4032	1152	CS102	132M4	PS102	213/215TC
113.4	2.1	5388	15.43	11063	4139	1183	-	-	PS102	213/215TC
101.7	1.9	5951	17.21	11506	4267	1219	CS102	132M4	PS102	213/215TC
92.1	1.9	6569	19.00	12391	4381	1252	CS102	132M4	PS102	213/215TC
84.0	1.7	7201	20.83	12391	4487	1282	CS102	132M4	PS102	213/215TC
79.1	1.6	7649	22.13	12391	4557	1302	CS102	132M4	PS102	213/215TC
72.1	1.6	8393	24.28	13276	4666	1333	CS102	132M4	PS102	213/215TC
66.5	1.5	9104	26.33	13276	4761	1360	CS102	132M4	PS102	213/215TC
58.6	1.3	10327	29.87	13276	4908	1402	CS102	132M4	PS102	213/215TC
54.0	1.2	11202	32.40	13276	4946	1429	CS102	132M4	PS102	213/215TC
50.1	1.0	12069	34.91	12391	4946	1454	CS102	132M4	PS102	213/215TC
45.7	1.0	13243	38.30	13276	4946	1484	CS102	132M4	-	-
103.0	3.9	5934	16.99	23012	6067	1733	-	-	PS122	213/215TC
82.4	3.4	7347	21.25	24782	6439	1840	CS122	132M4	PS122	213/215TC
78.2	3.2	7733	22.37	24782	6523	1864	CS122	132M4	PS122	213/215TC
75.1	3.2	8053	23.29	25667	6590	1883	CS122	132M4	PS122	213/215TC
66.9	2.9	9042	26.15	26552	6744	1938	CS122	132M4	PS122	213/215TC
61.2	2.7	9888	28.60	26552	6744	1980	CS122	132M4	PS122	213/215TC
57.4	2.5	10549	30.51	26552	6744	2011	CS122	132M4	PS122	213/215TC
53.4	2.3	11325	32.76	26552	6744	2044	CS122	132M4	PS122	213/215TC
52.3	2.3	11563	33.44	26552	6744	2053	CS122	132M4	PS122	213/215TC
49.7	2.2	12170	35.20	26552	6744	2077	CS122	132M4	PS122	213/215TC
42.6	1.9	14198	41.07	26552	6744	2147	CS122	132M4	PS122	213/215TC
40.1	1.8	15073	43.60	26552	6744	2174	CS122	132M4	PS122	213/215TC

5.1 S GEARED MOTORS

10 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
39.2	1.4	15430	44.63	21242	6744	2184	CS122	132M4	PS122	213/215TC
35.7	1.3	16954	49.04	21242	6744	2224	CS122	132M4	PS122	213/215TC
32.6	1.2	18583	53.75	23012	6744	2262	CS122	132M4	PS122	213/215TC
26.5	1.2	22819	66.00	26552	6744	2340	CS122	132M4	PS122	213/215TC
27.0	1.1	21950	64.84	23897	6744	2347	CS123	132M4	PS123	213/215TC
136.6	3.8	4430	12.81	16928	7868	4159	S142	132M4	-	-
122.6	3.2	4934	14.27	15765	7868	4159	S142	132M4	-	-
109.3	3.1	5534	16.01	17133	7868	4159	S142	132M4	-	-
96.6	3.1	6260	18.11	19382	7868	4159	S142	132M4	-	-
90.5	3.1	6684	19.33	20699	7868	4159	S142	132M4	-	-
78.7	2.8	7691	22.24	21418	7868	4159	S142	132M4	IS142	213/215TC
69.3	2.1	8734	25.26	18710	7868	4159	S142	132M4	IS142	213/215TC
61.8	2.1	9796	28.33	20984	7868	4159	S142	132M4	IS142	213/215TC
54.6	2.1	11082	32.05	23739	7868	4159	S142	132M4	IS142	213/215TC
51.1	2.1	11832	34.22	25346	7868	4159	S142	132M4	IS142	213/215TC
44.4	2.9	13613	39.38	39216	7868	4159	S142	132M4	IS142	213/215TC
38.2	2.3	15493	45.77	35517	7868	4159	S143	132M4	IS143	213/215TC
34.3	2.3	17256	50.97	39561	7868	4159	S143	132M4	IS143	213/215TC
30.6	2.2	19355	57.17	41904	7868	4159	S143	132M4	IS143	213/215TC
27.1	1.9	21896	64.68	42257	7868	4159	S143	132M4	IS143	213/215TC
25.3	1.8	23378	69.06	43158	7868	4159	S143	132M4	IS143	213/215TC
22.0	1.4	26898	79.45	37469	7868	4159	S143	132M4	IS143	213/215TC
17.7	1.2	33451	98.81	39297	7868	4159	S143	132M4	IS143	213/215TC
15.9	1.1	37257	110.05	41895	7868	4159	S143	132M4	IS143	213/215TC
14.2	1.0	41789	123.44	42080	7868	4159	S143	132M4	-	-
34.1	4.0	17568	51.38	69614	8992	4361	-	-	IS153	213/215TC
31.0	3.8	19091	56.39	73053	8992	4361	S153	132M4	IS153	213/215TC
27.3	3.6	21684	64.05	77845	8992	4361	S153	132M4	IS153	213/215TC
23.8	2.8	24925	73.63	68854	8992	4361	S153	132M4	IS153	213/215TC
20.1	2.1	29506	87.16	62889	8992	4361	S153	132M4	IS153	213/215TC
18.0	2.1	32931	97.27	70191	8992	4361	S153	132M4	IS153	213/215TC
15.7	2.1	37804	111.67	80575	8992	4361	S153	132M4	IS153	213/215TC
14.3	2.0	41493	122.57	84402	8992	4361	S153	132M4	IS153	213/215TC
12.6	1.7	47128	139.21	80913	8992	4361	S153	132M4	IS153	213/215TC
11.4	1.2	52140	154.02	63094	8992	4361	S153	132M4	IS153	213/215TC
10.9	1.3	54171	160.02	71552	8992	4361	S153	132M4	IS153	213/215TC
9.9	1.2	59857	176.81	72434	8992	4361	S153	132M4	IS153	213/215TC
9.0	1.2	65697	194.06	79497	8992	4361	S153	132M4	IS153	213/215TC

10 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
7.9	1.1	74619	220.42	82782	8992	4361	S153	132M4	IS153	213/215TC

15 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
238.5	1.3	3806	7.34	4868	2572	735	CS082	132MC4	-	-
217.1	1.3	4181	8.06	5310	2632	752	CS082	132MC4	PS102	254/256TC
176.0	1.1	5157	9.94	5753	2764	790	CS082	132MC4	-	-
150.8	1.0	6019	11.61	6196	2860	817	CS082	132MC4	-	-
137.3	1.0	6612	12.75	6638	2916	833	CS082	132MC4	PS102	254/256TC
197.8	1.7	4588	8.85	7966	3438	982	CS102	132MC4	PS102	254/256TC
160.8	1.5	5645	10.88	8408	3633	1038	CS102	132MC4	PS102	254/256TC
125.1	1.5	7255	13.99	10621	3873	1107	CS102	132MC4	PS102	254/256TC
113.4	1.4	8001	15.43	11063	3967	1133	CS102	132MC4	PS102	254/256TC
101.7	1.3	8927	17.21	11506	4071	1163	CS102	132MC4	PS102	254/256TC
92.1	1.3	9854	19.00	12391	4164	1190	CS102	132MC4	PS102	254/256TC
84.0	1.1	10802	20.83	12391	4250	1214	CS102	132MC4	PS102	254/256TC
79.1	1.1	11474	22.13	12391	4305	1230	CS102	132MC4	PS102	254/256TC
72.1	1.1	12590	24.28	13276	4389	1254	CS102	132MC4	PS102	254/256TC
206.3	3.0	4443	8.48	13276	4850	1386	-	-	PS122	254/256TC
188.2	3.1	4870	9.30	15046	4971	1420	-	-	PS122	254/256TC
170.9	2.8	5363	10.24	15046	5100	1457	-	-	PS122	254/256TC
153.3	2.8	5980	11.42	16816	5246	1499	-	-	PS122	254/256TC
138.6	2.9	6613	12.63	19472	5381	1538	-	-	PS122	254/256TC
126.5	2.9	7249	13.84	21242	5505	1573	-	-	PS122	254/256TC
103.0	2.6	8901	16.99	23012	5781	1652	-	-	PS122	254/256TC
82.4	2.2	11020	21.25	24782	6085	1739	CS122	132MC4	PS122	254/256TC
78.2	2.1	11599	22.37	24782	6151	1758	CS122	132MC4	PS122	254/256TC
75.1	2.1	12079	23.29	25667	6203	1772	CS122	132MC4	PS122	254/256TC
66.9	2.0	13564	26.15	26552	6347	1814	CS122	132MC4	PS122	254/256TC
61.2	1.8	14832	28.60	26552	6454	1844	CS122	132MC4	PS122	254/256TC
57.4	1.7	15824	30.51	26552	6529	1865	CS122	132MC4	PS122	254/256TC
53.4	1.6	16987	32.76	26552	6608	1888	CS122	132MC4	PS122	254/256TC
52.3	1.5	17344	33.44	26552	6630	1894	CS122	132MC4	PS122	254/256TC
49.7	1.5	18255	35.20	26552	6684	1910	CS122	132MC4	PS122	254/256TC
42.6	1.2	21297	41.07	26552	6744	1952	CS122	132MC4	PS122	254/256TC
40.1	1.2	22610	43.60	26552	6744	1966	CS122	132MC4	PS122	254/256TC
239.1	3.3	3795	7.32	12376	7245	4140	S142	132MC4	-	-

5.1 S GEARED MOTORS

15 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
213.2	3.3	4257	8.21	13883	7462	4159	S142	132MC4	-	-
188.5	3.3	4815	9.29	15711	7695	4159	S142	132MC4	-	-
176.5	3.3	5141	9.91	16778	7819	4159	S142	132MC4	-	-
153.4	3.1	5915	11.41	18194	7868	4159	S142	132MC4	-	-
136.6	2.5	6645	12.81	16928	7868	4159	S142	132MC4	IS142	254/256TC
122.6	2.1	7401	14.27	15765	7868	4159	S142	132MC4	IS142	254/256TC
109.3	2.1	8301	16.01	17133	7868	4159	S142	132MC4	IS142	254/256TC
96.6	2.1	9391	18.11	19382	7868	4159	S142	132MC4	IS142	254/256TC
90.5	2.1	10026	19.33	20699	7868	4159	S142	132MC4	IS142	254/256TC
78.7	1.9	11536	22.24	21418	7868	4159	S142	132MC4	IS142	254/256TC
69.3	1.4	13100	25.26	18710	7868	4159	S142	132MC4	IS142	254/256TC
61.8	1.4	14694	28.33	20984	7868	4159	S142	132MC4	IS142	254/256TC
54.6	1.4	16623	32.05	23739	7868	4159	S142	132MC4	IS142	254/256TC
51.1	1.4	17748	34.22	25346	7868	4159	S142	132MC4	IS142	254/256TC
44.4	1.9	20420	39.38	39216	7868	4159	S142	132MC4	IS142	254/256TC
38.2	1.5	23240	45.77	35517	7868	4159	S143	132MC4	IS143	254/256TC
34.3	1.5	25884	50.97	39561	7868	4159	S143	132MC4	IS143	254/256TC
30.6	1.4	29032	57.17	41904	7868	4159	S143	132MC4	IS143	254/256TC
27.1	1.3	32843	64.68	42257	7868	4159	S143	132MC4	IS143	254/256TC
25.3	1.2	35067	69.06	43158	7868	4159	S143	132MC4	IS143	254/256TC
64.6	3.8	14198	27.11	53894	8992	4361	-	-	IS152	254/256TC
58.8	3.8	15583	29.75	59164	8992	4361	-	-	IS152	254/256TC
51.8	3.8	17699	33.79	67198	8992	4361	-	-	IS152	254/256TC
45.1	3.3	20344	38.84	68053	8992	4361	-	-	IS152	254/256TC
43.6	2.7	20364	40.10	55595	8992	4361	S153	132MC4	IS153	254/256TC
39.1	2.7	22728	44.76	62042	8992	4361	S153	132MC4	IS153	254/256TC
34.1	2.7	26092	51.38	69614	8992	4361	S153	132MC4	IS153	254/256TC
31.0	2.6	28637	56.39	73053	8992	4361	S153	132MC4	IS153	254/256TC
27.3	2.4	32526	64.05	77845	8992	4361	S153	132MC4	IS153	254/256TC
23.8	1.8	37387	73.63	68854	8992	4361	S153	132MC4	IS153	254/256TC
20.1	1.4	44259	87.16	62889	8992	4361	S153	132MC4	IS153	254/256TC
18.0	1.4	49396	97.27	70191	8992	4361	S153	132MC4	IS153	254/256TC
15.7	1.4	56707	111.67	80575	8992	4361	S153	132MC4	IS153	254/256TC
14.3	1.4	62239	122.57	84402	8992	4361	S153	132MC4	IS153	254/256TC
12.6	1.1	70691	139.21	80913	8992	4361	S153	132MC4	IS153	254/256TC

5.1 S GEARED MOTORS

20 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
217.1	1.3	5631	8.06	7523	3256	930	-	-	PS102	254/256TC
197.8	1.3	6178	8.85	7966	3333	952	-	-	PS102	254/256TC
160.8	1.1	7602	10.88	8408	3504	1001	-	-	PS102	254/256TC
125.1	1.1	9770	13.99	10621	3707	1059	-	-	PS102	254/256TC
113.4	1.0	10775	15.43	11063	3784	1081	-	-	PS102	254/256TC
206.3	2.2	5924	8.48	13276	4707	1345	-	-	PS122	254/256TC
188.2	2.3	6493	9.30	15046	4815	1376	-	-	PS122	254/256TC
170.9	2.1	7150	10.24	15046	4928	1408	-	-	PS122	254/256TC
153.3	2.1	7973	11.42	16816	5054	1444	-	-	PS122	254/256TC
138.6	2.2	8818	12.63	19472	5169	1477	-	-	PS122	254/256TC
126.5	2.2	9665	13.84	21242	5273	1506	-	-	PS122	254/256TC
103.0	1.9	11868	16.99	23012	5496	1570	-	-	PS122	254/256TC
82.4	1.7	14841	21.25	24782	5718	1634	-	-	PS122	254/256TC
78.2	1.6	15621	22.37	24782	5764	1647	-	-	PS122	254/256TC
75.1	1.6	16267	23.29	25667	5800	1657	-	-	PS122	254/256TC
66.9	1.5	18266	26.15	26552	5895	1684	-	-	PS122	254/256TC
61.2	1.3	19974	28.60	26552	5960	1703	-	-	PS122	254/256TC
57.4	1.2	21310	30.51	26552	6001	1715	-	-	PS122	254/256TC
53.4	1.2	22876	32.76	26552	6041	1726	-	-	PS122	254/256TC
52.3	1.1	23357	33.44	26552	6052	1729	-	-	PS122	254/256TC
49.7	1.1	24583	35.20	26552	6075	1736	-	-	PS122	254/256TC
239.1	3.3	5111	7.32	16953	6982	3990	-	-	IS142	254/256TC
213.2	3.3	5732	8.21	19017	7166	4095	-	-	IS142	254/256TC
188.5	3.3	6485	9.29	21522	7361	4159	-	-	IS142	254/256TC
176.5	3.3	6924	9.91	22983	7462	4159	-	-	IS142	254/256TC
153.4	3.1	7966	11.41	24924	7673	4159	-	-	IS142	254/256TC
136.6	2.6	8948	12.81	23189	7839	4159	-	-	IS142	254/256TC
122.6	2.2	9967	14.27	21596	7868	4159	-	-	IS142	254/256TC
109.3	2.1	11179	16.01	23470	7868	4159	-	-	IS142	254/256TC
96.6	2.1	12646	18.11	26551	7868	4159	-	-	IS142	254/256TC
90.5	2.1	13502	19.33	28355	7868	4159	-	-	IS142	254/256TC
78.7	1.9	15535	22.24	29340	7868	4159	-	-	IS142	254/256TC
69.3	1.5	17642	25.26	25630	7868	4159	-	-	IS142	254/256TC
61.8	1.5	19788	28.33	28745	7868	4159	-	-	IS142	254/256TC
54.6	1.5	22385	32.05	32519	7868	4159	-	-	IS142	254/256TC
51.1	1.5	23900	34.22	34721	7868	4159	-	-	IS142	254/256TC
44.4	1.4	27499	39.38	39216	7868	4159	-	-	IS142	254/256TC
38.2	1.1	31296	45.77	35517	7868	4159	-	-	IS143	254/256TC

5.1 S GEARED MOTORS

20 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
34.3	1.1	34857	50.97	39561	7868	4159	-	-	IS143	254/256TC
30.6	1.1	39097	57.17	41904	7868	4159	-	-	IS143	254/256TC
140.4	3.4	8704	12.46	29258	8992	4361	-	-	IS152	254/256TC
125.8	3.4	9714	13.91	32640	8992	4361	-	-	IS152	254/256TC
109.6	3.4	11152	15.97	37477	8992	4361	-	-	IS152	254/256TC
99.8	3.4	12240	17.53	41140	8992	4361	-	-	IS152	254/256TC
87.9	3.4	13902	19.91	46729	8992	4361	-	-	IS152	254/256TC
76.5	3.4	15980	22.88	53726	8992	4361	-	-	IS152	254/256TC
64.6	2.8	18930	27.11	53894	8992	4361	-	-	IS152	254/256TC
58.8	2.8	20777	29.75	59164	8992	4361	-	-	IS152	254/256TC
51.8	2.8	23599	33.79	67198	8992	4361	-	-	IS152	254/256TC
45.1	2.5	27126	38.84	68053	8992	4361	-	-	IS152	254/256TC
43.6	2.0	27424	40.10	55595	8992	4361	-	-	IS153	254/256TC
39.1	2.0	30607	44.76	62042	8992	4361	-	-	IS153	254/256TC
34.1	2.0	35137	51.38	69614	8992	4361	-	-	IS153	254/256TC
31.0	1.9	38565	56.39	73053	8992	4361	-	-	IS153	254/256TC
27.3	1.8	43802	64.05	77845	8992	4361	-	-	IS153	254/256TC
23.8	1.4	50348	73.63	68854	8992	4361	-	-	IS153	254/256TC
20.1	1.1	59602	87.16	62889	8992	4361	-	-	IS153	254/256TC
18.0	1.1	66520	97.27	70191	8992	4361	-	-	IS153	254/256TC
15.7	1.1	76365	111.67	80575	8992	4361	-	-	IS153	254/256TC
14.3	1.0	83815	122.57	84402	8992	4361	-	-	IS153	254/256TC

25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
206.3	1.8	7405	8.48	13276	4565	1304	-	-	PS122	284/286TC
188.2	1.9	8116	9.30	15046	4659	1331	-	-	PS122	284/286TC
170.9	1.7	8938	10.24	15046	4756	1359	-	-	PS122	284/286TC
153.3	1.7	9966	11.42	16816	4862	1389	-	-	PS122	284/286TC
138.6	1.8	11022	12.63	19472	4957	1416	-	-	PS122	284/286TC
126.5	1.8	12081	13.84	21242	5040	1440	-	-	PS122	284/286TC
103.0	1.6	14835	16.99	23012	5210	1489	-	-	PS122	284/286TC
82.4	1.3	18551	21.25	24782	5361	1532	-	-	PS122	284/286TC
78.2	1.3	19526	22.37	24782	5389	1540	-	-	PS122	284/286TC
75.1	1.3	20333	23.29	25667	5409	1545	-	-	PS122	284/286TC
66.9	1.2	22832	26.15	26552	5456	1559	-	-	PS122	284/286TC
61.2	1.1	24967	28.60	26552	5479	1566	-	-	PS122	284/286TC

5.1 S GEARED MOTORS

25 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
425.0	3.4	3595	4.12	12294	5902	3372	-	-	IS142	284/286TC
381.6	3.4	4004	4.59	13702	6060	3463	-	-	IS142	284/286TC
340.2	3.4	4491	5.14	15378	6227	3558	-	-	IS142	284/286TC
300.7	3.4	5080	5.82	17382	6405	3660	-	-	IS142	284/286TC
281.7	3.4	5424	6.21	18579	6498	3713	-	-	IS142	284/286TC
239.1	2.7	6388	7.32	16953	6726	3843	-	-	IS142	284/286TC
213.2	2.7	7165	8.21	19017	6879	3931	-	-	IS142	284/286TC
188.5	2.7	8106	9.29	21522	7036	4021	-	-	IS142	284/286TC
176.5	2.7	8654	9.91	22983	7116	4066	-	-	IS142	284/286TC
153.4	2.5	9957	11.41	24924	7274	4156	-	-	IS142	284/286TC
136.6	2.1	11185	12.81	23189	7390	4159	-	-	IS142	284/286TC
122.6	1.7	12458	14.27	21596	7484	4159	-	-	IS142	284/286TC
109.3	1.7	13973	16.01	23470	7566	4159	-	-	IS142	284/286TC
96.6	1.7	15808	18.11	26551	7629	4159	-	-	IS142	284/286TC
90.5	1.7	16878	19.33	28355	7651	4159	-	-	IS142	284/286TC
78.7	1.5	19419	22.24	29340	7664	4159	-	-	IS142	284/286TC
69.3	1.2	22052	25.26	25630	7632	4159	-	-	IS142	284/286TC
61.8	1.2	24735	28.33	28745	7560	4159	-	-	IS142	284/286TC
54.6	1.2	27982	32.05	32519	7429	4159	-	-	IS142	284/286TC
51.1	1.2	29876	34.22	34721	7335	4159	-	-	IS142	284/286TC
44.4	1.1	34374	39.38	39216	7064	4037	-	-	IS142	284/286TC
140.4	2.7	10880	12.46	29258	8992	4361	-	-	IS152	284/286TC
125.8	2.7	12143	13.91	32640	8992	4361	-	-	IS152	284/286TC
109.6	2.7	13940	15.97	37477	8992	4361	-	-	IS152	284/286TC
99.8	2.7	15300	17.53	41140	8992	4361	-	-	IS152	284/286TC
87.9	2.7	17378	19.91	46729	8992	4361	-	-	IS152	284/286TC
76.5	2.7	19975	22.88	53726	8992	4361	-	-	IS152	284/286TC
64.6	2.3	23663	27.11	53894	8992	4361	-	-	IS152	284/286TC
58.8	2.3	25971	29.75	59164	8992	4361	-	-	IS152	284/286TC
51.8	2.3	29498	33.79	67198	8992	4361	-	-	IS152	284/286TC
45.1	2.0	33907	38.84	68053	8992	4361	-	-	IS152	284/286TC
43.6	1.6	34280	40.10	55595	8992	4361	-	-	IS153	284/286TC
39.1	1.6	38259	44.76	62042	8992	4361	-	-	IS153	284/286TC
34.1	1.6	43921	51.38	69614	8992	4361	-	-	IS153	284/286TC
31.0	1.5	48206	56.39	73053	8992	4361	-	-	IS153	284/286TC
27.3	1.4	54752	64.05	77845	8992	4361	-	-	IS153	284/286TC
23.8	1.1	62935	73.63	68854	8992	4361	-	-	IS153	284/286TC

5.1 S GEARED MOTORS

30 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
206.3	1.5	8886	8.48	13276	4422	1264	-	-	PS122	284/286TC
188.2	1.5	9740	9.30	15046	4503	1286	-	-	PS122	284/286TC
170.9	1.4	10725	10.24	15046	4584	1310	-	-	PS122	284/286TC
153.3	1.4	11959	11.42	16816	4670	1334	-	-	PS122	284/286TC
138.6	1.5	13227	12.63	19472	4745	1356	-	-	PS122	284/286TC
126.5	1.5	14498	13.84	21242	4808	1374	-	-	PS122	284/286TC
103.0	1.3	17802	16.99	23012	4925	1407	-	-	PS122	284/286TC
82.4	1.1	22261	21.25	24782	5004	1430	-	-	PS122	284/286TC
78.2	1.1	23431	22.37	24782	5013	1432	-	-	PS122	284/286TC
75.1	1.1	24400	23.29	25667	5018	1434	-	-	PS122	284/286TC
425.0	2.9	4313	4.12	12294	5758	3290	-	-	IS142	284/286TC
381.6	2.9	4804	4.59	13702	5899	3371	-	-	IS142	284/286TC
340.2	2.9	5389	5.14	15378	6047	3455	-	-	IS142	284/286TC
300.7	2.9	6096	5.82	17382	6201	3544	-	-	IS142	284/286TC
281.7	2.9	6509	6.21	18579	6281	3589	-	-	IS142	284/286TC
239.1	2.2	7666	7.32	16953	6470	3697	-	-	IS142	284/286TC
213.2	2.2	8598	8.21	19017	6592	3767	-	-	IS142	284/286TC
188.5	2.2	9727	9.29	21522	6712	3835	-	-	IS142	284/286TC
176.5	2.2	10385	9.91	22983	6769	3868	-	-	IS142	284/286TC
153.4	2.1	11949	11.41	24924	6875	3929	-	-	IS142	284/286TC
136.6	1.7	13422	12.81	23189	6942	3967	-	-	IS142	284/286TC
122.6	1.4	14950	14.27	21596	6985	3991	-	-	IS142	284/286TC
109.3	1.4	16768	16.01	23470	7006	4003	-	-	IS142	284/286TC
96.6	1.4	18969	18.11	26551	6996	3998	-	-	IS142	284/286TC
90.5	1.4	20253	19.33	28355	6974	3985	-	-	IS142	284/286TC
78.7	1.3	23303	22.24	29340	6886	3935	-	-	IS142	284/286TC
268.3	4.0	6833	6.52	27216	8392	4361	-	-	IS152	284/286TC
240.4	3.8	7627	7.28	28845	8634	4361	-	-	IS152	284/286TC
209.4	3.6	8755	8.36	31252	8939	4361	-	-	IS152	284/286TC
190.8	3.5	9610	9.17	33199	8992	4361	-	-	IS152	284/286TC
168.0	3.4	10915	10.42	37014	8992	4361	-	-	IS152	284/286TC
140.4	2.2	13056	12.46	29258	8992	4361	-	-	IS152	284/286TC
125.8	2.2	14572	13.91	32640	8992	4361	-	-	IS152	284/286TC
109.6	2.2	16728	15.97	37477	8992	4361	-	-	IS152	284/286TC
99.8	2.2	18360	17.53	41140	8992	4361	-	-	IS152	284/286TC
87.9	2.2	20854	19.91	46729	8992	4361	-	-	IS152	284/286TC
76.5	2.2	23970	22.88	53726	8992	4361	-	-	IS152	284/286TC
64.6	1.9	28395	27.11	53894	8992	4361	-	-	IS152	284/286TC

5.1 S GEARED MOTORS

30 HP

Output speed [rpm]	Service factor sf	Output torque [in-lbs]	Exact ratio i	Max. torque [in-lbs]	OHL		Gearmotor		Gear Reducer	
					Output shaft [lbs]	Hollow bore [lbs]	Reducer	Motor	Reducer	NEMA C-input
58.8	1.9	31166	29.75	59164	8992	4361	-	-	IS152	284/286TC
51.8	1.9	35398	33.79	67198	8992	4361	-	-	IS152	284/286TC
45.1	1.7	40688	38.84	68053	8992	4361	-	-	IS152	284/286TC
43.6	1.4	41136	40.10	55595	8992	4361	-	-	IS153	284/286TC
39.1	1.4	45910	44.76	62042	8992	4361	-	-	IS153	284/286TC
34.1	1.3	52705	51.38	69614	8992	4361	-	-	IS153	284/286TC
31.0	1.3	57847	56.39	73053	8992	4361	-	-	IS153	284/286TC
27.3	1.2	65703	64.05	77845	8992	4361	-	-	IS153	284/286TC

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
1505	202.9	8.63	5.05	689	689	161	PS052	IS052
1682	157.1	11.14	4.37	743	743	182	PS052	IS052
1770	145.8	12.00	4.27	755	755	185	PS052	IS052
1859	128.2	13.66	3.94	786	786	195	PS052	IS052
2124	114.6	15.27	4.02	787	787	193	PS052	IS052
2124	107.5	16.29	3.77	810	810	200	PS052	IS052
2124	93.9	18.63	3.3	861	861	215	PS052	IS052
2124	88.7	19.73	3.11	884	884	221	PS052	IS052
2301	83.2	21.04	3.16	883	883	219	PS052	IS052
2301	81.3	21.53	3.09	893	893	221	PS052	IS052
2301	72.7	24.07	2.77	939	939	231	PS052	IS052
2567	69.4	25.20	2.95	919	919	226	PS052	IS052
2567	67.9	25.79	2.88	929	929	228	PS052	IS052
2567	62.9	27.81	2.67	962	962	234	PS052	IS052
2567	58.3	30.00	2.47	996	996	240	PS052	IS052
2655	53.8	32.55	2.36	1021	1021	244	PS052	IS052
2655	53.0	33.00	2.33	1027	1027	245	PS052	IS052
2655	51.3	34.09	2.25	1042	1042	247	PS052	IS052
2921	47.9	36.55	2.31	1036	1036	245	PS052	IS052
2921	45.2	38.75	2.18	1065	1065	249	PS052	IS052
3098	43.9	39.90	2.25	1053	1053	247	PS052	IS052
3098	41.1	42.63	2.1	1087	1087	252	PS052	IS052
3098	38.0	46.00	1.95	1126	1126	256	PS052	IS052
3098	37.1	47.20	1.9	1140	1140	258	PS052	IS052
3098	33.5	52.25	1.71	1194	1194	264	PS052	IS052
3098	30.2	57.86	1.55	1251	1251	269	PS052	IS052
3098	29.4	59.42	1.51	1266	1266	270	PS052	IS052
3098	24.0	72.83	1.23	1349	1349	278	PS052	IS052
3098	48.0	36.50	2.51	1010	1010	241	PS053	IS053
3098	37.1	47.14	1.94	1139	1139	258	PS053	IS053
3098	30.3	57.79	1.58	1250	1250	269	PS053	IS053
3098	27.4	63.74	1.44	1306	1306	273	PS053	IS053
3098	23.6	74.20	1.23	1349	1349	279	PS053	IS053
3098	22.4	78.14	1.17	1349	1349	281	PS053	IS053
3098	18.3	95.84	0.95	1349	1349	287	PS053	IS053
3098	14.9	117.48	0.78	1349	1349	293	PS053	IS053
3098	12.7	137.45	0.67	1349	1349	296	PS053	IS053
3098	9.9	177.55	0.52	1349	1349	301	PS053	IS053
3098	8.8	198.45	0.46	1349	1349	302	PS053	IS053
3098	8.0	217.64	0.42	1349	1349	304	PS053	IS053

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
3098	6.8	256.33	0.36	1349	1349	305	PS053	IS053
3098	5.6	314.21	0.29	1349	1349	307	PS053	IS053
2921	218.8	8.00	10.56	1058	423	79	PS062	IS062
2921	196.2	8.92	9.47	1114	446	103	PS062	IS062
3186	183.3	9.55	9.65	1107	443	99	PS062	IS062
3186	164.4	10.65	8.66	1166	467	122	PS062	IS062
3452	149.5	11.71	8.53	1177	471	124	PS062	IS062
3717	134.0	13.06	8.23	1198	479	131	PS062	IS062
3717	131.0	13.36	8.05	1211	485	135	PS062	IS062
3983	109.8	15.94	7.23	1277	511	154	PS062	IS062
3983	108.3	16.16	7.13	1286	514	156	PS062	IS062
3983	90.7	19.29	5.97	1402	561	182	PS062	IS062
4071	89.5	19.55	6.02	1397	559	181	PS062	IS062
4160	75.5	23.18	5.19	1501	600	200	PS062	IS062
4160	73.7	23.75	5.07	1519	607	203	PS062	IS062
4248	69.6	25.14	4.89	1546	618	207	PS062	IS062
4248	63.3	27.66	4.44	1617	647	217	PS062	IS062
4425	58.3	30.00	4.27	1651	661	221	PS062	IS062
4779	51.6	33.93	4.07	1692	677	225	PS062	IS062
5310	47.9	36.57	4.2	1669	667	222	PS062	IS062
5310	44.4	39.38	3.9	1731	692	229	PS062	IS062
5310	40.1	43.64	3.52	1820	728	237	PS062	IS062
5310	38.0	46.10	3.33	1869	748	242	PS062	IS062
5310	36.2	48.30	3.18	1911	764	245	PS062	IS062
5310	32.7	53.53	2.87	2007	803	252	PS062	IS062
5310	31.8	55.00	2.79	2032	813	254	PS062	IS062
5310	25.9	67.47	2.28	2234	893	265	PS062	IS062
5310	52.1	33.57	4.67	1598	639	214	PS063	IS063
5310	46.3	37.77	4.15	1696	678	225	PS063	IS063
5310	43.7	40.05	3.92	1745	698	230	PS063	IS063
5310	35.6	49.13	3.19	1927	771	246	PS063	IS063
5310	31.6	55.29	2.84	2037	815	254	PS063	IS063
5310	29.8	58.72	2.67	2095	838	258	PS063	IS063
5310	26.6	65.85	2.38	2209	884	264	PS063	IS063
5310	25.6	68.25	2.3	2245	898	266	PS063	IS063
5310	23.8	73.63	2.13	2248	899	270	PS063	IS063
5310	21.5	81.43	1.93	2248	899	274	PS063	IS063
5310	17.5	99.89	1.57	2248	899	282	PS063	IS063
5310	13.8	126.43	1.24	2248	899	289	PS063	IS063
5310	11.6	150.85	1.04	2248	899	294	PS063	IS063

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
5310	9.6	182.53	0.86	2248	899	298	PS063	IS063
5310	9.5	185.05	0.85	2248	899	298	PS063	IS063
5310	8.0	217.79	0.72	2248	899	301	PS063	IS063
5310	6.5	267.16	0.59	2248	899	304	PS063	IS063
4868	238.4	7.34	19.18	2484	710	284	PS082	IS082
5310	217.1	8.06	19.05	2538	725	286	PS082	IS082
5753	176.0	9.94	16.73	2715	776	333	PS082	IS082
6196	150.8	11.61	15.44	2845	813	359	PS082	IS082
6638	137.2	12.75	15.06	2914	833	367	PS082	IS082
6727	124.6	14.04	13.85	3019	863	391	PS082	IS082
6815	113.4	15.43	12.78	3124	893	413	PS082	IS082
6815	111.3	15.73	12.53	3148	899	418	PS082	IS082
6815	101.2	17.29	11.4	3266	933	441	PS082	IS082
6815	92.0	19.03	10.36	3389	968	462	PS082	IS082
6815	86.9	20.14	9.79	3464	990	474	PS082	IS082
7081	79.1	22.13	9.26	3569	1020	484	PS082	IS082
7081	72.9	24.00	8.53	3682	1052	499	PS082	IS082
7081	67.2	26.05	7.86	3799	1085	513	PS082	IS082
7966	64.1	27.29	8.44	3793	1084	501	PS082	IS082
7966	61.0	28.67	8.03	3866	1105	509	PS082	IS082
7966	59.1	29.60	7.78	3914	1118	514	PS082	IS082
8851	55.1	31.78	8.06	3949	1128	509	PS082	IS082
8851	50.1	34.91	7.33	4047	1170	523	PS082	IS082
8851	49.3	35.50	7.21	4047	1178	526	PS082	IS082
8851	43.7	40.05	6.39	4047	1234	542	PS082	IS082
8851	40.6	43.05	5.95	4047	1269	551	PS082	IS082
8851	34.8	50.25	5.09	4047	1347	568	PS082	IS082
8851	32.2	54.27	4.72	4047	1387	576	PS082	IS082
8851	28.2	61.98	4.13	4047	1458	588	PS082	IS082
8851	25.9	67.52	3.87	4047	1506	595	PS083	IS083
8851	23.6	74.18	3.52	4047	1561	602	PS083	IS083
8851	21.4	81.71	3.2	4047	1618	608	PS083	IS083
8851	19.1	91.49	2.86	4047	1619	615	PS083	IS083
8851	17.4	100.62	2.6	4047	1619	620	PS083	IS083
8851	14.9	117.17	2.23	4047	1619	627	PS083	IS083
8851	13.6	128.73	2.03	4047	1619	631	PS083	IS083
8851	12.8	136.34	1.92	4047	1619	634	PS083	IS083
8851	11.0	158.76	1.65	4047	1619	639	PS083	IS083
8851	9.5	184.88	1.41	4047	1619	644	PS083	IS083
8851	8.6	203.11	1.29	4047	1619	646	PS083	IS083

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
8851	8.5	205.34	1.27	4047	1619	646	PS083	IS083
8851	7.7	226.04	1.16	4047	1619	649	PS083	IS083
8851	7.0	250.50	1.04	4047	1619	651	PS083	IS083
8851	6.6	266.13	0.98	4047	1619	652	PS083	IS083
8851	6.0	292.36	0.89	4047	1619	654	PS083	IS083
8851	5.5	315.73	0.83	4047	1619	655	PS083	IS083
8851	4.8	360.58	0.73	4047	1619	657	PS083	IS083
7523	217.1	8.06	26.99	3132	895	145	PS102	IS102
7966	197.8	8.85	26.04	3215	919	164	PS102	IS102
8408	160.8	10.88	22.34	3451	986	236	PS102	IS102
8851	137.2	12.75	20.08	3636	1039	280	PS102	IS102
10621	125.1	13.99	21.96	3651	1043	244	PS102	IS102
11063	113.4	15.43	20.74	3765	1076	267	PS102	IS102
11506	101.7	17.21	19.33	3901	1114	295	PS102	IS102
12391	92.1	19.00	18.86	3997	1142	304	PS102	IS102
12391	84.0	20.83	17.21	4145	1184	336	PS102	IS102
12391	79.1	22.13	16.2	4245	1213	356	PS102	IS102
13276	72.1	24.28	15.82	4344	1241	363	PS102	IS102
13276	66.5	26.33	14.58	4486	1282	387	PS102	IS102
13276	58.6	29.87	12.86	4713	1347	421	PS102	IS102
13276	54.0	32.40	11.85	4866	1390	441	PS102	IS102
12391	50.1	34.91	10.27	4946	1448	472	PS102	IS102
13276	45.7	38.30	10.02	4946	1483	476	PS102	IS102
12391	41.1	42.53	8.43	4946	1561	508	PS102	IS102
11506	39.8	44.00	7.56	4946	1598	524	PS102	IS102
14161	37.1	47.13	8.69	4946	1589	502	PS102	IS102
12391	34.8	50.25	7.13	4946	1662	533	PS102	IS102
11506	31.7	55.14	6.04	4946	1738	554	PS102	IS102
14161	29.5	59.40	6.89	4946	1737	537	PS102	IS102
14161	25.8	67.84	6.04	4946	1826	554	PS102	IS102
14161	23.6	74.18	5.64	4946	1889	564	PS103	IS103
14161	21.5	81.39	5.14	4946	1956	574	PS103	IS103
14161	19.5	89.77	4.66	4946	2023	583	PS103	IS103
14161	17.5	100.15	4.18	4946	2023	592	PS103	IS103
14161	15.8	110.55	3.78	4946	2023	600	PS103	IS103
14161	14.4	121.29	3.45	4946	2023	606	PS103	IS103
14161	13.6	128.73	3.25	4946	2023	610	PS103	IS103
14161	12.4	141.24	2.96	4946	2023	615	PS103	IS103
14161	10.1	173.78	2.41	4946	2023	626	PS103	IS103
14161	9.3	188.51	2.22	4946	2023	630	PS103	IS103

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
14161	8.6	203.11	2.06	4946	2023	633	PS103	IS103
14161	7.8	222.85	1.88	4946	2023	636	PS103	IS103
14161	7.8	224.76	1.86	4946	2023	636	PS103	IS103
14161	6.4	274.20	1.53	4946	2023	643	PS103	IS103
14161	6.2	280.89	1.49	4946	2023	643	PS103	IS103
14161	6.0	292.36	1.43	4946	2023	645	PS103	IS103
14161	5.5	320.79	1.3	4946	2023	647	PS103	IS103
14161	5.1	345.60	1.21	4946	2023	649	PS103	IS103
14161	4.4	394.69	1.06	4946	2023	652	PS103	IS103
13276	206.3	8.48	45.27	4000	1143	663	PS122	IS122
15046	188.2	9.30	46.8	3992	1141	656	PS122	IS122
15046	170.9	10.24	42.5	4168	1191	677	PS122	IS122
16816	153.3	11.42	42.6	4203	1201	677	PS122	IS122
19472	138.6	12.63	44.6	4144	1184	667	PS122	IS122
21242	126.5	13.84	44.39	4159	1188	668	PS122	IS122
23012	103.0	16.99	39.17	4423	1264	694	PS122	IS122
24782	82.3	21.25	33.73	4761	1360	721	PS122	IS122
24782	78.2	22.37	32.04	4883	1395	730	PS122	IS122
25667	75.1	23.29	31.87	4896	1399	731	PS122	IS122
26552	66.9	26.15	29.36	5098	1456	744	PS122	IS122
26552	61.2	28.60	26.85	5327	1522	756	PS122	IS122
26552	57.4	30.51	25.17	5497	1571	765	PS122	IS122
26552	53.4	32.76	23.44	5688	1625	773	PS122	IS122
26552	52.3	33.44	22.96	5744	1641	776	PS122	IS122
26552	49.7	35.20	21.82	5886	1682	782	PS122	IS122
26552	42.6	41.07	18.7	6326	1808	797	PS122	IS122
26552	40.1	43.60	17.61	6503	1858	803	PS122	IS122
21242	39.2	44.63	13.77	6744	2024	822	PS122	IS122
21242	35.7	49.04	12.53	6744	2106	828	PS122	IS122
23012	32.6	53.75	12.38	6744	2141	829	PS122	IS122
26552	26.5	66.00	11.64	6744	2238	833	PS122	IS122
23897	27.0	64.84	10.89	6744	2293	838	PS123	IS123
23897	24.6	71.07	9.93	6744	2384	842	PS123	IS123
26552	22.3	78.46	10	6744	2412	842	PS123	IS123
26552	20.1	87.27	8.99	6744	2518	847	PS123	IS123
26552	16.5	105.91	7.41	6744	2518	855	PS123	IS123
26552	15.6	112.52	6.97	6744	2518	857	PS123	IS123
26552	14.2	123.33	6.36	6744	2518	860	PS123	IS123
26552	13.5	130.04	6.03	6744	2518	862	PS123	IS123
26552	13.1	133.78	5.86	6744	2518	863	PS123	IS123

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
26552	11.6	151.43	5.18	6744	2518	866	PS123	IS123
26552	9.9	177.53	4.42	6744	2518	870	PS123	IS123
26552	9.0	194.59	4.03	6744	2518	872	PS123	IS123
26552	8.1	215.60	3.64	6744	2518	874	PS123	IS123
26552	7.3	238.93	3.28	6744	2518	875	PS123	IS123
26552	6.8	255.54	3.07	6744	2518	876	PS123	IS123
12294	425.0	4.12	86.35	4159	2377	539	S142	IS142
13702	381.6	4.59	86.41	4117	2353	539	S142	IS142
15378	340.2	5.14	86.46	4046	2312	538	S142	IS142
17382	300.7	5.82	86.39	3941	2252	539	S142	IS142
18579	281.7	6.21	86.48	3863	2207	538	S142	IS142
16953	239.2	7.32	67	4610	2634	665	S142	IS142
19017	213.2	8.21	67.01	4505	2574	665	S142	IS142
21522	188.5	9.29	67.04	4349	2485	665	S142	IS142
22983	176.5	9.91	67.05	4245	2426	665	S142	IS142
24924	153.4	11.41	63.2	4276	2443	690	S142	IS142
23189	136.6	12.81	52.34	4986	2849	760	S142	IS142
21596	122.6	14.27	43.77	5654	3231	816	S142	IS142
23470	109.3	16.01	42.41	5664	3236	825	S142	IS142
26551	96.6	18.11	42.41	5477	3130	825	S142	IS142
28355	90.5	19.33	42.42	5352	3058	824	S142	IS142
29340	78.7	22.24	38.15	5677	3244	852	S142	IS142
25630	69.3	25.26	29.34	6915	3952	909	S142	IS142
28745	61.8	28.33	29.34	6756	3861	909	S142	IS142
32519	54.6	32.05	29.34	6520	3726	909	S142	IS142
34721	51.1	34.22	29.34	6364	3637	909	S142	IS142
39216	44.4	39.38	28.8	6095	3483	913	S142	IS142
35517	38.2	45.77	22.92	7545	4159	944	S143	IS143
39561	34.3	50.97	22.92	7266	4152	944	S143	IS143
41904	30.6	57.17	21.65	7383	4159	944	S143	IS143
42257	27.1	64.68	19.3	7868	4159	944	S143	IS143
43158	25.3	69.06	18.46	7868	4159	944	S143	IS143
37469	22.0	79.45	13.93	7868	4159	944	S143	IS143
39297	17.7	98.81	11.75	7868	4159	944	S143	IS143
41895	15.9	110.05	11.24	7868	4159	944	S143	IS143
42080	14.2	123.44	10.07	7868	4159	944	S143	IS143
42845	12.5	139.64	9.06	7868	4159	944	S143	IS143
42356	11.7	149.10	8.39	7868	4159	944	S143	IS143
33645	11.1	157.49	6.31	7868	4159	944	S143	IS143
41327	10.2	171.55	7.12	7868	4159	944	S143	IS143

5.2 IS GEAR REDUCER - fs=1, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
37473	10.0	175.41	6.31	7868	4159	944	S143	IS143
42030	8.9	196.74	6.31	7868	4159	944	S143	IS143
41731	7.9	222.57	5.54	7868	4159	944	S143	IS143
43205	7.4	237.63	5.37	7868	4159	944	S143	IS143
42411	6.4	273.41	4.58	7868	4159	944	S143	IS143
22775	430.9	4.06	162.17	5051	2886	630	S152	IS152
25411	386.1	4.53	162.13	5011	2864	630	S152	IS152
25791	336.3	5.20	143.34	5346	3055	704	S152	IS152
26039	306.4	5.71	131.85	5583	3190	749	S152	IS152
27216	268.3	6.52	120.67	5832	3332	793	S152	IS152
28845	240.4	7.28	114.59	5968	3411	817	S152	IS152
31252	209.4	8.36	108.15	6113	3493	843	S152	IS152
33199	190.8	9.17	104.67	6182	3532	856	S152	IS152
37014	168.0	10.42	102.75	6147	3512	864	S152	IS152
29258	140.4	12.46	67.9	7779	4361	1001	S152	IS152
32640	125.8	13.91	67.86	7776	4361	1001	S152	IS152
37477	109.6	15.97	67.88	7722	4361	1001	S152	IS152
41140	99.8	17.53	67.89	7650	4361	1001	S152	IS152
46729	87.9	19.91	67.89	7498	4285	1001	S152	IS152
53726	76.5	22.88	67.91	7248	4142	1001	S152	IS152
53894	64.6	27.11	57.5	8031	4361	1042	S152	IS152
59164	58.8	29.75	57.52	7831	4361	1042	S152	IS152
67198	51.8	33.79	57.52	7477	4273	1042	S152	IS152
68053	45.1	38.84	50.67	8118	4361	1069	S152	IS152
55595	43.6	40.10	40.95	8992	4361	1111	S153	IS153
62042	39.1	44.76	40.94	8992	4361	1111	S153	IS153
69614	34.1	51.38	40.02	8992	4361	1114	S153	IS153
73053	31.0	56.39	38.26	8992	4361	1121	S153	IS153
77845	27.3	64.05	35.9	8992	4361	1130	S153	IS153
68854	23.8	73.63	27.62	8992	4361	1162	S153	IS153
62889	20.1	87.16	21.31	8992	4361	1169	S153	IS153
70191	18.0	97.27	21.31	8992	4361	1169	S153	IS153
80575	15.7	111.67	21.31	8992	4361	1169	S153	IS153
84402	14.3	122.57	20.34	8992	4361	1169	S153	IS153
80913	12.6	139.21	17.17	8992	4361	1169	S153	IS153
63094	11.4	154.02	12.1	8992	4361	1169	S153	IS153
71552	10.9	160.02	13.21	8992	4361	1169	S153	IS153
72434	9.9	176.81	12.1	8992	4361	1169	S153	IS153
79497	9.0	194.06	12.1	8992	4361	1169	S153	IS153
82782	7.9	220.42	11.09	8992	4361	1169	S153	IS153

5.2 IS GEAR REDUCER - $f_s=1$, 1750 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
73272	6.9	253.36	8.54	8992	4361	1169	S153	IS153

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
1505	132.2	8.63	3.29	828	828	161	PS052	IS052
1682	102.3	11.14	2.84	894	894	182	PS052	IS052
1770	95.0	12.00	2.78	909	909	185	PS052	IS052
1859	83.5	13.66	2.56	947	947	195	PS052	IS052
2124	74.6	15.27	2.62	954	954	193	PS052	IS052
2124	70.0	16.29	2.46	981	981	200	PS052	IS052
2124	61.2	18.63	2.15	1040	1040	215	PS052	IS052
2124	57.8	19.73	2.03	1066	1066	221	PS052	IS052
2301	54.2	21.04	2.06	1069	1069	219	PS052	IS052
2301	53.0	21.53	2.01	1080	1080	221	PS052	IS052
2301	47.4	24.07	1.8	1133	1133	231	PS052	IS052
2567	45.2	25.20	1.92	1116	1116	226	PS052	IS052
2567	44.2	25.79	1.88	1128	1128	228	PS052	IS052
2567	41.0	27.81	1.74	1166	1166	234	PS052	IS052
2567	38.0	30.00	1.61	1205	1205	240	PS052	IS052
2655	35.0	32.55	1.54	1235	1235	244	PS052	IS052
2655	34.5	33.00	1.52	1243	1243	245	PS052	IS052
2655	33.4	34.09	1.47	1260	1260	247	PS052	IS052
2921	31.2	36.55	1.51	1259	1259	245	PS052	IS052
2921	29.4	38.75	1.42	1292	1292	249	PS052	IS052
3098	28.6	39.90	1.46	1283	1283	247	PS052	IS052
3098	26.7	42.63	1.37	1321	1321	252	PS052	IS052
3098	24.8	46.00	1.27	1349	1349	256	PS052	IS052
3098	24.1	47.20	1.24	1349	1349	258	PS052	IS052
3098	21.8	52.25	1.12	1349	1349	264	PS052	IS052
3098	19.7	57.86	1.01	1349	1349	269	PS052	IS052
3098	19.2	59.42	0.98	1349	1349	270	PS052	IS052
3098	15.7	72.83	0.8	1349	1349	278	PS052	IS052
3098	31.2	36.50	1.63	1232	1232	241	PS053	IS053
3098	24.2	47.14	1.26	1349	1349	258	PS053	IS053
3098	19.7	57.79	1.03	1349	1349	269	PS053	IS053
3098	17.9	63.74	0.94	1349	1349	273	PS053	IS053
3098	15.4	74.20	0.8	1349	1349	279	PS053	IS053
3098	14.6	78.14	0.76	1349	1349	281	PS053	IS053
3098	11.9	95.84	0.62	1349	1349	287	PS053	IS053
3098	9.7	117.48	0.51	1349	1349	293	PS053	IS053
3098	8.3	137.45	0.43	1349	1349	296	PS053	IS053
3098	6.4	177.55	0.34	1349	1349	301	PS053	IS053
3098	5.7	198.45	0.3	1349	1349	302	PS053	IS053
3098	5.2	217.64	0.27	1349	1349	304	PS053	IS053

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
3098	4.5	256.33	0.23	1349	1349	305	PS053	IS053
3098	3.6	314.21	0.19	1349	1349	307	PS053	IS053
2921	142.5	8.00	6.88	1290	516	79	PS062	IS062
2921	127.8	8.92	6.17	1355	542	103	PS062	IS062
3186	119.4	9.55	6.29	1353	541	99	PS062	IS062
3186	107.1	10.65	5.64	1421	569	122	PS062	IS062
3452	97.4	11.71	5.55	1440	576	124	PS062	IS062
3717	87.3	13.06	5.36	1471	588	131	PS062	IS062
3717	85.3	13.36	5.24	1486	595	135	PS062	IS062
3983	71.5	15.94	4.71	1569	627	154	PS062	IS062
3983	70.5	16.16	4.64	1579	632	156	PS062	IS062
3983	59.1	19.29	3.89	1712	685	182	PS062	IS062
4071	58.3	19.55	3.92	1709	683	181	PS062	IS062
4160	49.2	23.18	3.38	1831	732	200	PS062	IS062
4160	48.0	23.75	3.3	1851	740	203	PS062	IS062
4248	45.3	25.14	3.18	1885	754	207	PS062	IS062
4248	41.2	27.66	2.89	1967	787	217	PS062	IS062
4425	38.0	30.00	2.78	2010	804	221	PS062	IS062
4779	33.6	33.93	2.65	2066	826	225	PS062	IS062
5310	31.2	36.57	2.74	2052	821	222	PS062	IS062
5310	28.9	39.38	2.54	2124	849	229	PS062	IS062
5310	26.1	43.64	2.29	2226	891	237	PS062	IS062
5310	24.7	46.10	2.17	2248	899	242	PS062	IS062
5310	23.6	48.30	2.07	2248	899	245	PS062	IS062
5310	21.3	53.53	1.87	2248	899	252	PS062	IS062
5310	20.7	55.00	1.82	2248	899	254	PS062	IS062
5310	16.9	67.47	1.48	2248	899	265	PS062	IS062
5310	34.0	33.57	3.04	1971	788	214	PS063	IS063
5310	30.2	37.77	2.71	2083	833	225	PS063	IS063
5310	28.5	40.05	2.55	2141	856	230	PS063	IS063
5310	23.2	49.13	2.08	2248	899	246	PS063	IS063
5310	20.6	55.29	1.85	2248	899	254	PS063	IS063
5310	19.4	58.72	1.74	2248	899	258	PS063	IS063
5310	17.3	65.85	1.55	2248	899	264	PS063	IS063
5310	16.7	68.25	1.5	2248	899	266	PS063	IS063
5310	15.5	73.63	1.39	2248	899	270	PS063	IS063
5310	14.0	81.43	1.25	2248	899	274	PS063	IS063
5310	11.4	99.89	1.02	2248	899	282	PS063	IS063
5310	9.0	126.43	0.81	2248	899	289	PS063	IS063
5310	7.6	150.85	0.68	2248	899	294	PS063	IS063

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
5310	6.2	182.53	0.56	2248	899	298	PS063	IS063
5310	6.2	185.05	0.55	2248	899	298	PS063	IS063
5310	5.2	217.79	0.47	2248	899	301	PS063	IS063
5310	4.3	267.16	0.38	2248	899	304	PS063	IS063
4868	155.3	7.34	12.5	2923	835	284	PS082	IS082
5310	141.4	8.06	12.41	2991	855	286	PS082	IS082
5753	114.6	9.94	10.9	3200	914	333	PS082	IS082
6196	98.2	11.61	10.06	3355	959	359	PS082	IS082
6638	89.4	12.75	9.81	3441	983	367	PS082	IS082
6727	81.2	14.04	9.02	3563	1018	391	PS082	IS082
6815	73.9	15.43	8.32	3685	1053	413	PS082	IS082
6815	72.5	15.73	8.17	3712	1061	418	PS082	IS082
6815	65.9	17.29	7.42	3849	1100	441	PS082	IS082
6815	59.9	19.03	6.75	3990	1140	462	PS082	IS082
6815	56.6	20.14	6.38	4047	1165	474	PS082	IS082
7081	51.5	22.13	6.03	4047	1200	484	PS082	IS082
7081	47.5	24.00	5.56	4047	1237	499	PS082	IS082
7081	43.8	26.05	5.12	4047	1276	513	PS082	IS082
7966	41.8	27.29	5.5	4047	1277	501	PS082	IS082
7966	39.8	28.67	5.23	4047	1301	509	PS082	IS082
7966	38.5	29.60	5.07	4047	1317	514	PS082	IS082
8851	35.9	31.78	5.25	4047	1332	509	PS082	IS082
8851	32.7	34.91	4.78	4047	1380	523	PS082	IS082
8851	32.1	35.50	4.7	4047	1389	526	PS082	IS082
8851	28.5	40.05	4.16	4047	1454	542	PS082	IS082
8851	26.5	43.05	3.87	4047	1494	551	PS082	IS082
8851	22.7	50.25	3.32	4047	1584	568	PS082	IS082
8851	21.0	54.27	3.07	4047	1619	576	PS082	IS082
8851	18.4	61.98	2.69	4047	1619	588	PS082	IS082
8851	16.9	67.52	2.52	4047	1619	595	PS083	IS083
8851	15.4	74.18	2.3	4047	1619	602	PS083	IS083
8851	13.9	81.71	2.08	4047	1619	608	PS083	IS083
8851	12.5	91.49	1.86	4047	1619	615	PS083	IS083
8851	11.3	100.62	1.69	4047	1619	620	PS083	IS083
8851	9.7	117.17	1.45	4047	1619	627	PS083	IS083
8851	8.9	128.73	1.32	4047	1619	631	PS083	IS083
8851	8.4	136.34	1.25	4047	1619	634	PS083	IS083
8851	7.2	158.76	1.07	4047	1619	639	PS083	IS083
8851	6.2	184.88	0.92	4047	1619	644	PS083	IS083
8851	5.6	203.11	0.84	4047	1619	646	PS083	IS083

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
8851	5.5	205.34	0.83	4047	1619	646	PS083	IS083
8851	5.0	226.04	0.75	4047	1619	649	PS083	IS083
8851	4.5	250.50	0.68	4047	1619	651	PS083	IS083
8851	4.3	266.13	0.64	4047	1619	652	PS083	IS083
8851	3.9	292.36	0.58	4047	1619	654	PS083	IS083
8851	3.6	315.73	0.54	4047	1619	655	PS083	IS083
8851	3.2	360.58	0.47	4047	1619	657	PS083	IS083
7523	141.4	8.06	17.58	3683	1052	145	PS102	IS102
7966	128.9	8.85	16.96	3784	1081	164	PS102	IS102
8408	104.7	10.88	14.55	4059	1160	236	PS102	IS102
8851	89.4	12.75	13.08	4278	1222	280	PS102	IS102
10621	81.5	13.99	14.3	4312	1232	244	PS102	IS102
11063	73.9	15.43	13.51	4447	1271	267	PS102	IS102
11506	66.2	17.21	12.59	4609	1317	295	PS102	IS102
12391	60.0	19.00	12.29	4728	1351	304	PS102	IS102
12391	54.7	20.83	11.21	4899	1400	336	PS102	IS102
12391	51.5	22.13	10.55	4946	1433	356	PS102	IS102
13276	47.0	24.28	10.3	4946	1468	363	PS102	IS102
13276	43.3	26.33	9.5	4946	1514	387	PS102	IS102
13276	38.2	29.87	8.37	4946	1589	421	PS102	IS102
13276	35.2	32.40	7.72	4946	1639	441	PS102	IS102
12391	32.7	34.91	6.69	4946	1703	472	PS102	IS102
13276	29.8	38.30	6.53	4946	1747	476	PS102	IS102
12391	26.8	42.53	5.49	4946	1833	508	PS102	IS102
11506	25.9	44.00	4.93	4946	1873	524	PS102	IS102
14161	24.2	47.13	5.66	4946	1871	502	PS102	IS102
12391	22.7	50.25	4.65	4946	1950	533	PS102	IS102
11506	20.7	55.14	3.93	4946	2023	554	PS102	IS102
14161	19.2	59.40	4.49	4946	2023	537	PS102	IS102
14161	16.8	67.84	3.93	4946	2023	554	PS102	IS102
14161	15.4	74.18	3.67	4946	2023	564	PS103	IS103
14161	14.0	81.39	3.35	4946	2023	574	PS103	IS103
14161	12.7	89.77	3.04	4946	2023	583	PS103	IS103
14161	11.4	100.15	2.72	4946	2023	592	PS103	IS103
14161	10.3	110.55	2.46	4946	2023	600	PS103	IS103
14161	9.4	121.29	2.25	4946	2023	606	PS103	IS103
14161	8.9	128.73	2.12	4946	2023	610	PS103	IS103
14161	8.1	141.24	1.93	4946	2023	615	PS103	IS103
14161	6.6	173.78	1.57	4946	2023	626	PS103	IS103
14161	6.0	188.51	1.45	4946	2023	630	PS103	IS103

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
14161	5.6	203.11	1.34	4946	2023	633	PS103	IS103
14161	5.1	222.85	1.22	4946	2023	636	PS103	IS103
14161	5.1	224.76	1.21	4946	2023	636	PS103	IS103
14161	4.2	274.20	0.99	4946	2023	643	PS103	IS103
14161	4.1	280.89	0.97	4946	2023	643	PS103	IS103
14161	3.9	292.36	0.93	4946	2023	645	PS103	IS103
14161	3.5	320.79	0.85	4946	2023	647	PS103	IS103
14161	3.3	345.60	0.79	4946	2023	649	PS103	IS103
14161	2.9	394.69	0.69	4946	2023	652	PS103	IS103
13276	134.4	8.48	29.49	4802	1372	663	PS122	IS122
15046	122.6	9.30	30.49	4818	1377	656	PS122	IS122
15046	111.3	10.24	27.69	5021	1435	677	PS122	IS122
16816	99.9	11.42	27.75	5087	1454	677	PS122	IS122
19472	90.3	12.63	29.06	5058	1445	667	PS122	IS122
21242	82.4	13.84	28.92	5101	1457	668	PS122	IS122
23012	67.1	16.99	25.51	5432	1552	694	PS122	IS122
24782	53.6	21.25	21.97	5847	1671	721	PS122	IS122
24782	51.0	22.37	20.87	5987	1711	730	PS122	IS122
25667	48.9	23.29	20.76	6015	1718	731	PS122	IS122
26552	43.6	26.15	19.13	6260	1789	744	PS122	IS122
26552	39.9	28.60	17.49	6524	1864	756	PS122	IS122
26552	37.4	30.51	16.39	6720	1920	765	PS122	IS122
26552	34.8	32.76	15.27	6744	1983	773	PS122	IS122
26552	34.1	33.44	14.96	6744	2002	776	PS122	IS122
26552	32.4	35.20	14.21	6744	2048	782	PS122	IS122
26552	27.8	41.07	12.18	6744	2193	797	PS122	IS122
26552	26.1	43.60	11.47	6744	2251	803	PS122	IS122
21242	25.5	44.63	8.97	6744	2420	822	PS122	IS122
21242	23.2	49.04	8.16	6744	2515	828	PS122	IS122
23012	21.2	53.75	8.07	6744	2518	829	PS122	IS122
26552	17.3	66.00	7.58	6744	2518	833	PS122	IS122
23897	17.6	64.84	7.09	6744	2518	838	PS123	IS123
23897	16.0	71.07	6.47	6744	2518	842	PS123	IS123
26552	14.5	78.46	6.51	6744	2518	842	PS123	IS123
26552	13.1	87.27	5.85	6744	2518	847	PS123	IS123
26552	10.8	105.91	4.82	6744	2518	855	PS123	IS123
26552	10.1	112.52	4.54	6744	2518	857	PS123	IS123
26552	9.2	123.33	4.14	6744	2518	860	PS123	IS123
26552	8.8	130.04	3.93	6744	2518	862	PS123	IS123
26552	8.5	133.78	3.82	6744	2518	863	PS123	IS123

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

TECHNICAL CATALOGUE

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
26552	7.5	151.43	3.37	6744	2518	866	PS123	IS123
26552	6.4	177.53	2.88	6744	2518	870	PS123	IS123
26552	5.9	194.59	2.63	6744	2518	872	PS123	IS123
26552	5.3	215.60	2.37	6744	2518	874	PS123	IS123
26552	4.8	238.93	2.14	6744	2518	875	PS123	IS123
26552	4.5	255.54	2	6744	2518	876	PS123	IS123
12294	276.9	4.12	56.25	5165	2952	539	S142	IS142
13702	248.6	4.59	56.29	5159	2948	539	S142	IS142
15378	221.6	5.14	56.32	5129	2931	538	S142	IS142
17382	195.9	5.82	56.28	5068	2896	539	S142	IS142
18579	183.5	6.21	56.34	5015	2866	538	S142	IS142
16953	155.8	7.32	43.65	5826	3329	665	S142	IS142
19017	138.9	8.21	43.65	5768	3296	665	S142	IS142
21522	122.8	9.29	43.67	5665	3237	665	S142	IS142
22983	115.0	9.91	43.68	5590	3194	665	S142	IS142
24924	100.0	11.41	41.17	5684	3248	690	S142	IS142
23189	89.0	12.81	34.1	6449	3685	760	S142	IS142
21596	79.9	14.27	28.51	7170	4097	816	S142	IS142
23470	71.2	16.01	27.63	7238	4136	825	S142	IS142
26551	63.0	18.11	27.62	7117	4067	825	S142	IS142
28355	59.0	19.33	27.63	7028	4016	824	S142	IS142
29340	51.2	22.24	24.85	7432	4159	852	S142	IS142
25630	45.1	25.26	19.12	7868	4159	909	S142	IS142
28745	40.2	28.33	19.11	7868	4159	909	S142	IS142
32519	35.6	32.05	19.11	7868	4159	909	S142	IS142
34721	33.3	34.22	19.11	7868	4159	909	S142	IS142
39216	28.9	39.38	18.76	7868	4159	913	S142	IS142
35517	24.9	45.77	14.93	7868	4159	944	S143	IS143
39561	22.4	50.97	14.93	7868	4159	944	S143	IS143
41904	19.9	57.17	14.1	7868	4159	944	S143	IS143
42257	17.6	64.68	12.57	7868	4159	944	S143	IS143
43158	16.5	69.06	12.03	7868	4159	944	S143	IS143
37469	14.3	79.45	9.07	7868	4159	944	S143	IS143
39297	11.5	98.81	7.65	7868	4159	944	S143	IS143
41895	10.4	110.05	7.32	7868	4159	944	S143	IS143
42080	9.2	123.44	6.56	7868	4159	944	S143	IS143
42845	8.2	139.64	5.9	7868	4159	944	S143	IS143
42356	7.7	149.10	5.47	7868	4159	944	S143	IS143
33645	7.2	157.49	4.11	7868	4159	944	S143	IS143
41327	6.7	171.55	4.64	7868	4159	944	S143	IS143

5.3 IS GEAR REDUCER - fs=1, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
37473	6.5	175.41	4.11	7868	4159	944	S143	IS143
42030	5.8	196.74	4.11	7868	4159	944	S143	IS143
41731	5.1	222.57	3.61	7868	4159	944	S143	IS143
43205	4.8	237.63	3.5	7868	4159	944	S143	IS143
42411	4.2	273.41	2.98	7868	4159	944	S143	IS143
22775	280.7	4.06	105.64	6253	3573	630	S152	IS152
25411	251.5	4.53	105.62	6258	3576	630	S152	IS152
25791	219.1	5.20	93.38	6650	3800	704	S152	IS152
26039	199.6	5.71	85.89	6928	3959	749	S152	IS152
27216	174.8	6.52	78.61	7237	4135	793	S152	IS152
28845	156.6	7.28	74.65	7426	4243	817	S152	IS152
31252	136.4	8.36	70.45	7638	4361	843	S152	IS152
33199	124.3	9.17	68.19	7754	4361	856	S152	IS152
37014	109.4	10.42	66.93	7787	4361	864	S152	IS152
29258	91.5	12.46	44.23	8992	4361	1001	S152	IS152
32640	82.0	13.91	44.21	8992	4361	1001	S152	IS152
37477	71.4	15.97	44.22	8992	4361	1001	S152	IS152
41140	65.0	17.53	44.22	8992	4361	1001	S152	IS152
46729	57.3	19.91	44.23	8992	4361	1001	S152	IS152
53726	49.8	22.88	44.24	8992	4361	1001	S152	IS152
53894	42.1	27.11	37.46	8992	4361	1042	S152	IS152
59164	38.3	29.75	37.47	8992	4361	1042	S152	IS152
67198	33.7	33.79	37.47	8992	4361	1042	S152	IS152
68053	29.4	38.84	33.01	8992	4361	1069	S152	IS152
55595	28.4	40.10	26.67	8992	4361	1111	S153	IS153
62042	25.5	44.76	26.67	8992	4361	1111	S153	IS153
69614	22.2	51.38	26.07	8992	4361	1114	S153	IS153
73053	20.2	56.39	24.92	8992	4361	1121	S153	IS153
77845	17.8	64.05	23.38	8992	4361	1130	S153	IS153
68854	15.5	73.63	17.99	8992	4361	1162	S153	IS153
62889	13.1	87.16	13.88	8992	4361	1169	S153	IS153
70191	11.7	97.27	13.88	8992	4361	1169	S153	IS153
80575	10.2	111.67	13.88	8992	4361	1169	S153	IS153
84402	9.3	122.57	13.25	8992	4361	1169	S153	IS153
80913	8.2	139.21	11.18	8992	4361	1169	S153	IS153
63094	7.4	154.02	7.88	8992	4361	1169	S153	IS153
71552	7.1	160.02	8.6	8992	4361	1169	S153	IS153
72434	6.5	176.81	7.88	8992	4361	1169	S153	IS153
79497	5.9	194.06	7.88	8992	4361	1169	S153	IS153
82782	5.2	220.42	7.23	8992	4361	1169	S153	IS153

5.3 IS GEAR REDUCER - $f_s=1$, 1140 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
73272	4.5	253.36	5.56	8992	4361	1169	S153	IS153

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
1505	101.5	8.63	2.5	923	923	161	PS052	IS052
1682	78.5	11.14	2.16	998	998	182	PS052	IS052
1770	72.9	12.00	2.11	1016	1016	185	PS052	IS052
1859	64.1	13.66	1.95	1059	1059	195	PS052	IS052
2124	57.3	15.27	1.99	1070	1070	193	PS052	IS052
2124	53.7	16.29	1.87	1099	1099	200	PS052	IS052
2124	47.0	18.63	1.63	1163	1163	215	PS052	IS052
2124	44.4	19.73	1.54	1192	1192	221	PS052	IS052
2301	41.6	21.04	1.57	1198	1198	219	PS052	IS052
2301	40.6	21.53	1.53	1209	1209	221	PS052	IS052
2301	36.4	24.07	1.37	1267	1267	231	PS052	IS052
2567	34.7	25.20	1.46	1253	1253	226	PS052	IS052
2567	33.9	25.79	1.43	1265	1265	228	PS052	IS052
2567	31.5	27.81	1.32	1307	1307	234	PS052	IS052
2567	29.2	30.00	1.22	1349	1349	240	PS052	IS052
2655	26.9	32.55	1.17	1349	1349	244	PS052	IS052
2655	26.5	33.00	1.15	1349	1349	245	PS052	IS052
2655	25.7	34.09	1.12	1349	1349	247	PS052	IS052
2921	23.9	36.55	1.14	1349	1349	245	PS052	IS052
2921	22.6	38.75	1.08	1349	1349	249	PS052	IS052
3098	21.9	39.90	1.11	1349	1349	247	PS052	IS052
3098	20.5	42.63	1.04	1349	1349	252	PS052	IS052
3098	19.0	46.00	0.96	1349	1349	256	PS052	IS052
3098	18.5	47.20	0.94	1349	1349	258	PS052	IS052
3098	16.8	52.25	0.85	1349	1349	264	PS052	IS052
3098	15.1	57.86	0.77	1349	1349	269	PS052	IS052
3098	14.7	59.42	0.75	1349	1349	270	PS052	IS052
3098	12.0	72.83	0.61	1349	1349	278	PS052	IS052
3098	24.0	36.50	1.24	1349	1349	241	PS053	IS053
3098	18.6	47.14	0.96	1349	1349	258	PS053	IS053
3098	15.1	57.79	0.78	1349	1349	269	PS053	IS053
3098	13.7	63.74	0.71	1349	1349	273	PS053	IS053
3098	11.8	74.20	0.61	1349	1349	279	PS053	IS053
3098	11.2	78.14	0.58	1349	1349	281	PS053	IS053
3098	9.1	95.84	0.47	1349	1349	287	PS053	IS053
3098	7.5	117.48	0.39	1349	1349	293	PS053	IS053
3098	6.4	137.45	0.33	1349	1349	296	PS053	IS053
3098	4.9	177.55	0.26	1349	1349	301	PS053	IS053
3098	4.4	198.45	0.23	1349	1349	302	PS053	IS053
3098	4.0	217.64	0.21	1349	1349	304	PS053	IS053

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
3098	3.4	256.33	0.18	1349	1349	305	PS053	IS053
3098	2.8	314.21	0.14	1349	1349	307	PS053	IS053
2921	109.4	8.00	5.23	1451	580	79	PS062	IS062
2921	98.1	8.92	4.69	1521	608	103	PS062	IS062
3186	91.7	9.55	4.78	1523	609	99	PS062	IS062
3186	82.2	10.65	4.29	1598	639	122	PS062	IS062
3452	74.7	11.71	4.22	1623	649	124	PS062	IS062
3717	67.0	13.06	4.08	1660	664	131	PS062	IS062
3717	65.5	13.36	3.98	1677	671	135	PS062	IS062
3983	54.9	15.94	3.58	1770	708	154	PS062	IS062
3983	54.1	16.16	3.53	1782	713	156	PS062	IS062
3983	45.4	19.29	2.96	1927	771	182	PS062	IS062
4071	44.8	19.55	2.98	1924	770	181	PS062	IS062
4160	37.8	23.18	2.57	2059	824	200	PS062	IS062
4160	36.8	23.75	2.51	2081	832	203	PS062	IS062
4248	34.8	25.14	2.42	2119	848	207	PS062	IS062
4248	31.6	27.66	2.2	2209	883	217	PS062	IS062
4425	29.2	30.00	2.11	2248	899	221	PS062	IS062
4779	25.8	33.93	2.02	2248	899	225	PS062	IS062
5310	23.9	36.57	2.08	2248	899	222	PS062	IS062
5310	22.2	39.38	1.93	2248	899	229	PS062	IS062
5310	20.1	43.64	1.74	2248	899	237	PS062	IS062
5310	19.0	46.10	1.65	2248	899	242	PS062	IS062
5310	18.1	48.30	1.57	2248	899	245	PS062	IS062
5310	16.4	53.53	1.42	2248	899	252	PS062	IS062
5310	15.9	55.00	1.38	2248	899	254	PS062	IS062
5310	13.0	67.47	1.13	2248	899	265	PS062	IS062
5310	26.1	33.57	2.31	2229	891	214	PS063	IS063
5310	23.2	37.77	2.06	2248	899	225	PS063	IS063
5310	21.9	40.05	1.94	2248	899	230	PS063	IS063
5310	17.8	49.13	1.58	2248	899	246	PS063	IS063
5310	15.8	55.29	1.4	2248	899	254	PS063	IS063
5310	14.9	58.72	1.32	2248	899	258	PS063	IS063
5310	13.3	65.85	1.18	2248	899	264	PS063	IS063
5310	12.8	68.25	1.14	2248	899	266	PS063	IS063
5310	11.9	73.63	1.05	2248	899	270	PS063	IS063
5310	10.8	81.43	0.95	2248	899	274	PS063	IS063
5310	8.8	99.89	0.78	2248	899	282	PS063	IS063
5310	6.9	126.43	0.61	2248	899	289	PS063	IS063
5310	5.8	150.85	0.51	2248	899	294	PS063	IS063

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
5310	4.8	182.53	0.43	2248	899	298	PS063	IS063
5310	4.7	185.05	0.42	2248	899	298	PS063	IS063
5310	4.0	217.79	0.36	2248	899	301	PS063	IS063
5310	3.3	267.16	0.29	2248	899	304	PS063	IS063
4868	119.2	7.34	9.5	3226	922	284	PS082	IS082
5310	108.5	8.06	9.43	3304	944	286	PS082	IS082
5753	88.0	9.94	8.28	3536	1010	333	PS082	IS082
6196	75.4	11.61	7.64	3709	1060	359	PS082	IS082
6638	68.6	12.75	7.45	3805	1087	367	PS082	IS082
6727	62.3	14.04	6.86	3939	1125	391	PS082	IS082
6815	56.7	15.43	6.32	4047	1164	413	PS082	IS082
6815	55.6	15.73	6.21	4047	1172	418	PS082	IS082
6815	50.6	17.29	5.64	4047	1215	441	PS082	IS082
6815	46.0	19.03	5.13	4047	1259	462	PS082	IS082
6815	43.5	20.14	4.84	4047	1286	474	PS082	IS082
7081	39.5	22.13	4.58	4047	1325	484	PS082	IS082
7081	36.5	24.00	4.22	4047	1366	499	PS082	IS082
7081	33.6	26.05	3.89	4047	1408	513	PS082	IS082
7966	32.1	27.29	4.18	4047	1411	501	PS082	IS082
7966	30.5	28.67	3.98	4047	1437	509	PS082	IS082
7966	29.6	29.60	3.85	4047	1455	514	PS082	IS082
8851	27.5	31.78	3.99	4047	1472	509	PS082	IS082
8851	25.1	34.91	3.63	4047	1525	523	PS082	IS082
8851	24.6	35.50	3.57	4047	1535	526	PS082	IS082
8851	21.9	40.05	3.16	4047	1606	542	PS082	IS082
8851	20.3	43.05	2.94	4047	1619	551	PS082	IS082
8851	17.4	50.25	2.52	4047	1619	568	PS082	IS082
8851	16.1	54.27	2.34	4047	1619	576	PS082	IS082
8851	14.1	61.98	2.04	4047	1619	588	PS082	IS082
8851	13.0	67.52	1.92	4047	1619	595	PS083	IS083
8851	11.8	74.18	1.74	4047	1619	602	PS083	IS083
8851	10.7	81.71	1.58	4047	1619	608	PS083	IS083
8851	9.6	91.49	1.41	4047	1619	615	PS083	IS083
8851	8.7	100.62	1.29	4047	1619	620	PS083	IS083
8851	7.5	117.17	1.1	4047	1619	627	PS083	IS083
8851	6.8	128.73	1.01	4047	1619	631	PS083	IS083
8851	6.4	136.34	0.95	4047	1619	634	PS083	IS083
8851	5.5	158.76	0.82	4047	1619	639	PS083	IS083
8851	4.7	184.88	0.7	4047	1619	644	PS083	IS083
8851	4.3	203.11	0.64	4047	1619	646	PS083	IS083

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
8851	4.3	205.34	0.63	4047	1619	646	PS083	IS083
8851	3.9	226.04	0.57	4047	1619	649	PS083	IS083
8851	3.5	250.50	0.52	4047	1619	651	PS083	IS083
8851	3.3	266.13	0.49	4047	1619	652	PS083	IS083
8851	3.0	292.36	0.44	4047	1619	654	PS083	IS083
8851	2.8	315.73	0.41	4047	1619	655	PS083	IS083
8851	2.4	360.58	0.36	4047	1619	657	PS083	IS083
7523	108.5	8.06	13.36	4064	1161	145	PS102	IS102
7966	98.9	8.85	12.89	4177	1193	164	PS102	IS102
8408	80.4	10.88	11.06	4480	1280	236	PS102	IS102
8851	68.6	12.75	9.94	4721	1349	280	PS102	IS102
10621	62.5	13.99	10.87	4769	1363	244	PS102	IS102
11063	56.7	15.43	10.27	4920	1406	267	PS102	IS102
11506	50.8	17.21	9.57	4946	1457	295	PS102	IS102
12391	46.0	19.00	9.34	4946	1495	304	PS102	IS102
12391	42.0	20.83	8.52	4946	1549	336	PS102	IS102
12391	39.5	22.13	8.02	4946	1585	356	PS102	IS102
13276	36.0	24.28	7.83	4946	1624	363	PS102	IS102
13276	33.2	26.33	7.22	4946	1675	387	PS102	IS102
13276	29.3	29.87	6.36	4946	1757	421	PS102	IS102
13276	27.0	32.40	5.87	4946	1812	441	PS102	IS102
12391	25.1	34.91	5.08	4946	1880	472	PS102	IS102
13276	22.8	38.30	4.96	4946	1929	476	PS102	IS102
12391	20.6	42.53	4.17	4946	2022	508	PS102	IS102
11506	19.9	44.00	3.74	4946	2023	524	PS102	IS102
14161	18.6	47.13	4.3	4946	2023	502	PS102	IS102
12391	17.4	50.25	3.53	4946	2023	533	PS102	IS102
11506	15.9	55.14	2.99	4946	2023	554	PS102	IS102
14161	14.7	59.40	3.41	4946	2023	537	PS102	IS102
14161	12.9	67.84	2.99	4946	2023	554	PS102	IS102
14161	11.8	74.18	2.79	4946	2023	564	PS103	IS103
14161	10.8	81.39	2.54	4946	2023	574	PS103	IS103
14161	9.8	89.77	2.31	4946	2023	583	PS103	IS103
14161	8.7	100.15	2.07	4946	2023	592	PS103	IS103
14161	7.9	110.55	1.87	4946	2023	600	PS103	IS103
14161	7.2	121.29	1.71	4946	2023	606	PS103	IS103
14161	6.8	128.73	1.61	4946	2023	610	PS103	IS103
14161	6.2	141.24	1.47	4946	2023	615	PS103	IS103
14161	5.0	173.78	1.19	4946	2023	626	PS103	IS103
14161	4.6	188.51	1.1	4946	2023	630	PS103	IS103

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
14161	4.3	203.11	1.02	4946	2023	633	PS103	IS103
14161	3.9	222.85	0.93	4946	2023	636	PS103	IS103
14161	3.9	224.76	0.92	4946	2023	636	PS103	IS103
14161	3.2	274.20	0.76	4946	2023	643	PS103	IS103
14161	3.1	280.89	0.74	4946	2023	643	PS103	IS103
14161	3.0	292.36	0.71	4946	2023	645	PS103	IS103
14161	2.7	320.79	0.65	4946	2023	647	PS103	IS103
14161	2.5	345.60	0.6	4946	2023	649	PS103	IS103
14161	2.2	394.69	0.52	4946	2023	652	PS103	IS103
13276	103.2	8.48	22.41	5356	1530	663	PS122	IS122
15046	94.1	9.30	23.17	5390	1540	656	PS122	IS122
15046	85.5	10.24	21.04	5611	1603	677	PS122	IS122
16816	76.7	11.42	21.09	5699	1628	677	PS122	IS122
19472	69.3	12.63	22.08	5691	1626	667	PS122	IS122
21242	63.2	13.84	21.98	5753	1644	668	PS122	IS122
23012	51.5	16.99	19.39	6129	1751	694	PS122	IS122
24782	41.2	21.25	16.7	6598	1885	721	PS122	IS122
24782	39.1	22.37	15.86	6744	1929	730	PS122	IS122
25667	37.6	23.29	15.78	6744	1940	731	PS122	IS122
26552	33.5	26.15	14.54	6744	2018	744	PS122	IS122
26552	30.6	28.60	13.29	6744	2101	756	PS122	IS122
26552	28.7	30.51	12.46	6744	2162	765	PS122	IS122
26552	26.7	32.76	11.61	6744	2230	773	PS122	IS122
26552	26.2	33.44	11.37	6744	2251	776	PS122	IS122
26552	24.9	35.20	10.8	6744	2301	782	PS122	IS122
26552	21.3	41.07	9.26	6744	2460	797	PS122	IS122
26552	20.1	43.60	8.72	6744	2518	803	PS122	IS122
21242	19.6	44.63	6.81	6744	2518	822	PS122	IS122
21242	17.8	49.04	6.2	6744	2518	828	PS122	IS122
23012	16.3	53.75	6.13	6744	2518	829	PS122	IS122
26552	13.3	66.00	5.76	6744	2518	833	PS122	IS122
23897	13.5	64.84	5.39	6744	2518	838	PS123	IS123
23897	12.3	71.07	4.92	6744	2518	842	PS123	IS123
26552	11.2	78.46	4.95	6744	2518	842	PS123	IS123
26552	10.0	87.27	4.45	6744	2518	847	PS123	IS123
26552	8.3	105.91	3.67	6744	2518	855	PS123	IS123
26552	7.8	112.52	3.45	6744	2518	857	PS123	IS123
26552	7.1	123.33	3.15	6744	2518	860	PS123	IS123
26552	6.7	130.04	2.99	6744	2518	862	PS123	IS123
26552	6.5	133.78	2.9	6744	2518	863	PS123	IS123

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
26552	5.8	151.43	2.56	6744	2518	866	PS123	IS123
26552	4.9	177.53	2.19	6744	2518	870	PS123	IS123
26552	4.5	194.59	2	6744	2518	872	PS123	IS123
26552	4.1	215.60	1.8	6744	2518	874	PS123	IS123
26552	3.7	238.93	1.62	6744	2518	875	PS123	IS123
26552	3.4	255.54	1.52	6744	2518	876	PS123	IS123
12294	212.5	4.12	42.75	5861	3349	539	S142	IS142
13702	190.8	4.59	42.78	5880	3360	539	S142	IS142
15378	170.1	5.14	42.8	5878	3359	538	S142	IS142
17382	150.4	5.82	42.77	5848	3342	539	S142	IS142
18579	140.8	6.21	42.81	5812	3321	538	S142	IS142
16953	119.6	7.32	33.17	6667	3810	665	S142	IS142
19017	106.6	8.21	33.17	6642	3796	665	S142	IS142
21522	94.2	9.29	33.19	6575	3757	665	S142	IS142
22983	88.3	9.91	33.19	6520	3726	665	S142	IS142
24924	76.7	11.41	31.29	6658	3805	690	S142	IS142
23189	68.3	12.81	25.91	7461	4159	760	S142	IS142
21596	61.3	14.27	21.67	7868	4159	816	S142	IS142
23470	54.7	16.01	20.99	7868	4159	825	S142	IS142
26551	48.3	18.11	20.99	7868	4159	825	S142	IS142
28355	45.3	19.33	21	7868	4159	824	S142	IS142
29340	39.3	22.24	18.88	7868	4159	852	S142	IS142
25630	34.6	25.26	14.53	7868	4159	909	S142	IS142
28745	30.9	28.33	14.53	7868	4159	909	S142	IS142
32519	27.3	32.05	14.53	7868	4159	909	S142	IS142
34721	25.6	34.22	14.53	7868	4159	909	S142	IS142
39216	22.2	39.38	14.26	7868	4159	913	S142	IS142
35517	19.1	45.77	11.35	7868	4159	944	S143	IS143
39561	17.2	50.97	11.35	7868	4159	944	S143	IS143
41904	15.3	57.17	10.72	7868	4159	944	S143	IS143
42257	13.5	64.68	9.55	7868	4159	944	S143	IS143
43158	12.7	69.06	9.14	7868	4159	944	S143	IS143
37469	11.0	79.45	6.9	7868	4159	944	S143	IS143
39297	8.9	98.81	5.82	7868	4159	944	S143	IS143
41895	8.0	110.05	5.57	7868	4159	944	S143	IS143
42080	7.1	123.44	4.98	7868	4159	944	S143	IS143
42845	6.3	139.64	4.49	7868	4159	944	S143	IS143
42356	5.9	149.10	4.15	7868	4159	944	S143	IS143
33645	5.6	157.49	3.12	7868	4159	944	S143	IS143
41327	5.1	171.55	3.52	7868	4159	944	S143	IS143

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
37473	5.0	175.41	3.12	7868	4159	944	S143	IS143
42030	4.5	196.74	3.12	7868	4159	944	S143	IS143
41731	3.9	222.57	2.74	7868	4159	944	S143	IS143
43205	3.7	237.63	2.66	7868	4159	944	S143	IS143
42411	3.2	273.41	2.27	7868	4159	944	S143	IS143
22775	215.4	4.06	80.28	7084	4048	630	S152	IS152
25411	193.0	4.53	80.26	7120	4069	630	S152	IS152
25791	168.1	5.20	70.96	7553	4316	704	S152	IS152
26039	153.2	5.71	65.27	7858	4361	749	S152	IS152
27216	134.1	6.52	59.74	8209	4361	793	S152	IS152
28845	120.2	7.28	56.73	8434	4361	817	S152	IS152
31252	104.7	8.36	53.54	8693	4361	843	S152	IS152
33199	95.4	9.17	51.82	8842	4361	856	S152	IS152
37014	84.0	10.42	50.86	8922	4361	864	S152	IS152
29258	70.2	12.46	33.61	8992	4361	1001	S152	IS152
32640	62.9	13.91	33.6	8992	4361	1001	S152	IS152
37477	54.8	15.97	33.6	8992	4361	1001	S152	IS152
41140	49.9	17.53	33.61	8992	4361	1001	S152	IS152
46729	44.0	19.91	33.61	8992	4361	1001	S152	IS152
53726	38.2	22.88	33.62	8992	4361	1001	S152	IS152
53894	32.3	27.11	28.47	8992	4361	1042	S152	IS152
59164	29.4	29.75	28.47	8992	4361	1042	S152	IS152
67198	25.9	33.79	28.47	8992	4361	1042	S152	IS152
68053	22.5	38.84	25.09	8992	4361	1069	S152	IS152
55595	21.8	40.10	20.27	8992	4361	1111	S153	IS153
62042	19.6	44.76	20.27	8992	4361	1111	S153	IS153
69614	17.0	51.38	19.81	8992	4361	1114	S153	IS153
73053	15.5	56.39	18.94	8992	4361	1121	S153	IS153
77845	13.7	64.05	17.77	8992	4361	1130	S153	IS153
68854	11.9	73.63	13.67	8992	4361	1162	S153	IS153
62889	10.0	87.16	10.55	8992	4361	1169	S153	IS153
70191	9.0	97.27	10.55	8992	4361	1169	S153	IS153
80575	7.8	111.67	10.55	8992	4361	1169	S153	IS153
84402	7.1	122.57	10.07	8992	4361	1169	S153	IS153
80913	6.3	139.21	8.5	8992	4361	1169	S153	IS153
63094	5.7	154.02	5.99	8992	4361	1169	S153	IS153
71552	5.5	160.02	6.54	8992	4361	1169	S153	IS153
72434	5.0	176.81	5.99	8992	4361	1169	S153	IS153
79497	4.5	194.06	5.99	8992	4361	1169	S153	IS153
82782	4.0	220.42	5.49	8992	4361	1169	S153	IS153

5.4 IS GEAR REDUCER - fs=1, 875 rpm

Maximum torque [in-lbs]	Output speed [rpm]	Exact ratio i	Maximum Power [HP]	OHL			Gear Reducer	
				Output shaft [lbs]	Hollow bore [lbs]	Input shaft [lbs]	Motorized Input	Shaft Input
73272	3.5	253.36	4.23	8992	4361	1169	S153	IS153

ATTENTION!

The revised data and information, shown in this technical catalogue, replaces the data of the previous editions. Old data is now obsolete. All technical data, dimensions, weights in this catalogue are subject to changes without warning. Illustrations are not binding. You can find the above mentioned data and information on our site www.motovario.com; please periodically consult the technical documentation on the web site to be always updated about possible modifications of performances and characteristics of the product.

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